APRIL • 1960

FIREMEN

VOLUME 27, NUMBER 4. COPYRIGHT© 1960 NATIONAL FIRE PROTECTION ASSOCIATION PRINTED IN U. S. A.

LP-Gas Fire in Montreal—*see page 9*

ONAL FIRE
TECTION
OCIATION

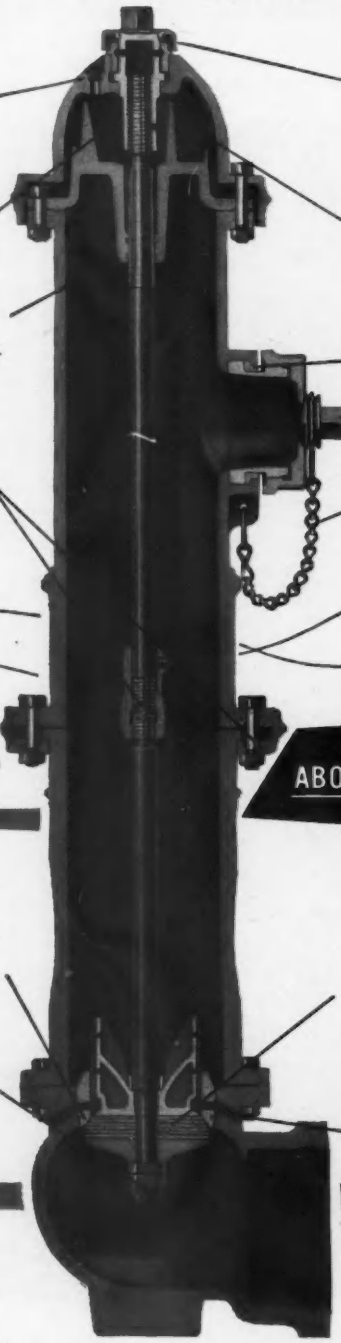
64th year

Things to Consider When Choosing a Portable Pump! - - - - - - - - - - page 12

Using Heavy Streams - - - - - - - - - page 18

MUELLER

AWWA IMPROVED FIRE HYDRANTS



OIL FILLER PLUG
Check oil level quickly with dipstick and add oil if needed without removing bonnet.

OIL RESERVOIR
Positive, automatic lubrication of all stem threads and bearing surfaces each time hydrant is operated.

"O" RING SEALS
Permanent, water-tight seal without packing adjustments or stem binding.

SAFETY FLANGE AND SAFETY STEM COUPLING
Prevent damage and permit convenient facing of nozzles, addition of extension sections or changing of upper barrel for different nozzle arrangements quickly, easily, inexpensively . . . all without digging or water shut-off.

BRONZE WEATHER CAP
Prevents freezing of operating nut and discourages tampering.

DRY TOP DESIGN
Operating threads and bearing surfaces sealed from water.

BREECH-LOCKED NOZZLES
Interlocking lugs and calking prevent blow-out. Easily removed if necessary.

NON-KINKING CHAINS
Each chain individually attached directly under nozzle.

. . . designed for

ABOVE-GROUND MAINTENANCE!

BRONZE SEAT RING
Straight threads and copper asbestos gasket permit easy removal of seat ring.

BRONZE CAP NUT
Locks and seals stem threads to prevent corrosion.

COMPRESSION-TYPE MAIN VALVE
Closes with water pressure...stays closed without strain ..permits repairs or changes without water shut-off.

DOUBLE DRAIN OPENINGS
Automatically force-flushed each time hydrant is operated.

MUELLER CO.
DECATUR, ILL.

Factories at: Decatur, Chattanooga, Los Angeles;
In Canada: Mueller, Limited, Sarnia, Ontario

NOW... A 750 GPM FRONT MOUNTED PUMP

BARTON-AMERICAN MODEL UA-75

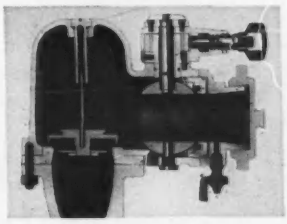
Look at the advantages this biggest Barton-American front mounted pump gives you—extra advantages that help you "kill" fires in a hurry:

The UA-75 is a Class A pump rated at 750 gpm at 150 lbs. Handles *three* 2½" hose lines for volume—and delivers high pressure to 400 lbs. for effective fog streams. You can fight brush fires *while truck is moving* . . . and "nose" down to pond or stream to draft water inaccessible to midship pumpers.

Exclusive, interlocking pump clutch has direct mechanical connection. It *can't* slip! Frost-proof design has been *proven* in thousands of pumps. *Engine vacuum primer* is positive, fast and frost-proof. *Direct controls* make operation fast and easy. Accessibility and simple pump construction cut maintenance time.

The UA-75 includes *factory engineered* p.t.o. shaft, universal joints and pump gear ratios best for *your* truck's engine.

It will pay you to investigate the top-quality, precision-built Barton-American Type UA-75. It *costs less* to buy, install and maintain—because it's simpler!



Has Ball-Type Locking Valves.

Regulates volume as you desire. A quarter-turn of the handle locks it positively in any position. Check valve eliminates need to close hose lines to prime pump. Smooth operation—heavy duty construction.

★ AMERICAN ★
FIRE PUMP COMPANY

P. O. BOX 219-B
BATTLE CREEK, MICHIGAN

Send a man instead of a boy!

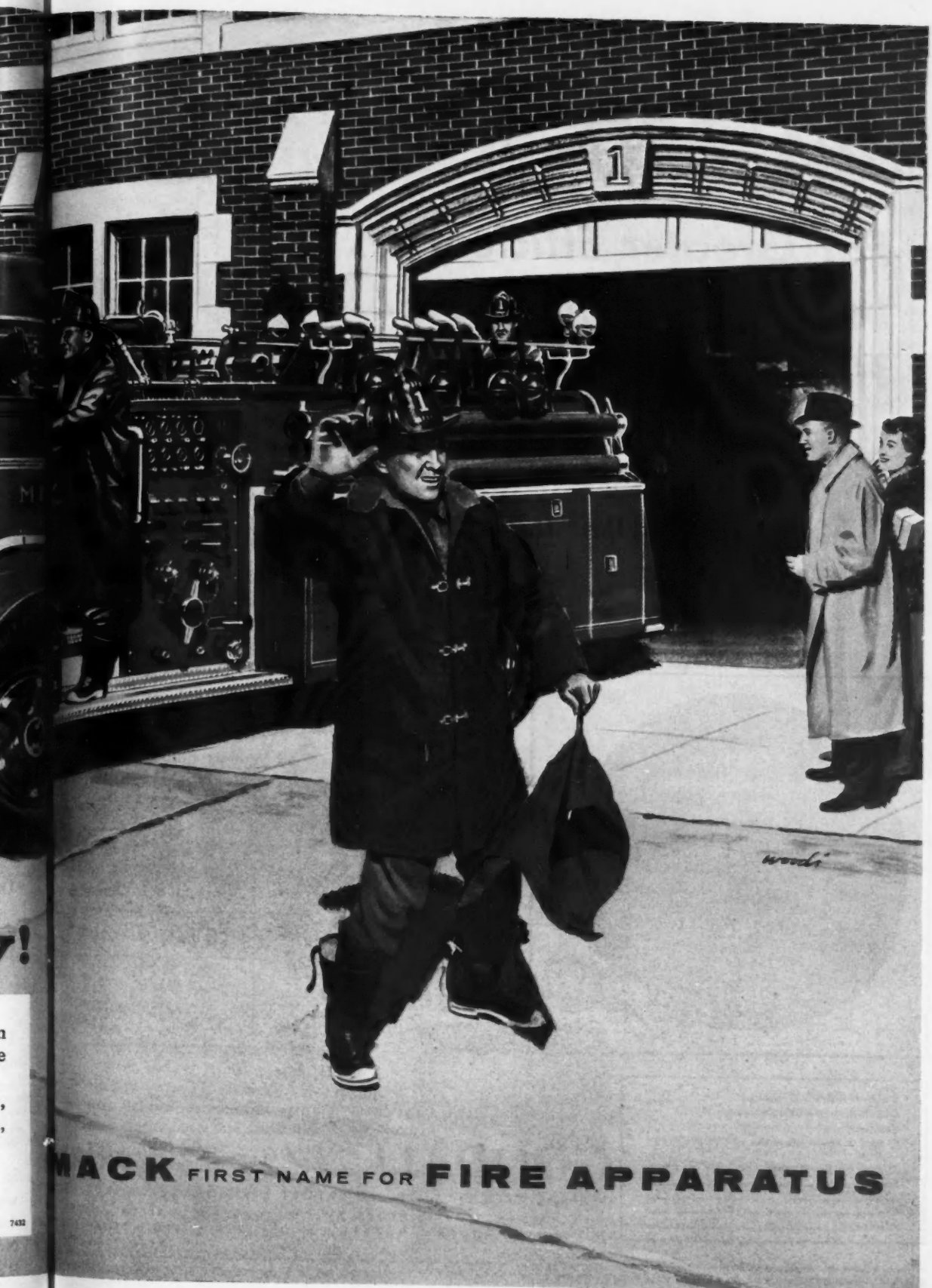
All-out drill or "three-bagger"—it's all the same to Mack fire apparatus because Macks are always ready for any assignment.

When you consider new apparatus, make sure it's capable of handling the most demanding assignment you can anticipate. Make sure it's dependable Mack fire apparatus!

Mack Fire Apparatus, Allentown, Pennsylvania. Mack Trucks of Canada, Ltd., Toronto, Ontario.

COMPLETE LINE OF PUMPERS — 500 to 1250 GPM ... SQUAD AND HOSE WAGONS ... AERIALS 65' to 144' ... COMBINATION LADDER TRUCKS

7432


1
MACK FIRST NAME FOR FIRE APPARATUS

Go MODERN... With "RED-FLEX"

(U.S. Pat. No. 2392967)

For Greater Efficiency... Lower Costs...in Fire Hose Handling and Maintenance

STRONG · LIGHTWEIGHT · CHEMICAL, OIL and GREASE RESISTANT

Stays Dry*... No Hose Towers, Mechanical Dryers, Humidity Machines or Excessive Spares Required. *Mildew-Resistant

NEOPRENE COVERED

COMPARE the weight and coil compactness of "Red-Flex" with heavier, bulkier old-fashioned hose. No wonder it's being specified by more and more Fire Departments, everywhere!

STANDARD SIZES 400 LB. TEST

Hose Size	Wgt., 50', Uncoupl'd	50' Coil Diameter
1½"	20 lbs.	19"
2"	29½ lbs.	21"
2½"	37 lbs.	21"

Goodall Rubber Company Date_____
448 Whitehead Rd., Trenton 4, N. J.
Gentlemen:
☐ Send complete information on "RED-FLEX" Fire Hose
☐ Have representative call with details and prices.
Company_____
Address_____
City_____ Zone____ State_____
Attention of_____

Standard of Quality—Since 1870

HOSE · BELTING · FOOTWEAR · CLOTHING AND OTHER INDUSTRIAL RUBBER PRODUCTS

GOODALL *Rubber Company*

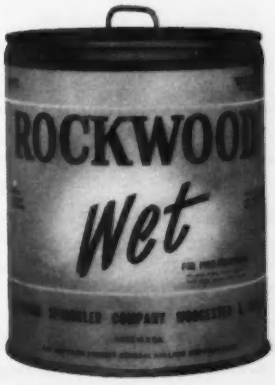
GENERAL OFFICES, MILLS and EXPORT DIVISION, TRENTON, N. J.

BRANCHES AND DISTRIBUTORS THROUGHOUT THE UNITED STATES
IN CANADA: GOODALL RUBBER CO OF CANADA LTD., TORONTO.

puts deep seated fires out fast

One part of Rockwood WET mixed with 99 parts water increases penetration and extinguishing power. It's ideal — especially in rural areas where water is limited. It takes less water . . . less time . . . you save money — and it makes the work of fire fighters more efficient. Tested and listed by Underwriters' Lab. ROCKWOOD SPRINKLER COMPANY, A Division of The Gamewell Company, *Engineers Water . . . to Cut Fire Loss.*

ROCKWOOD WET



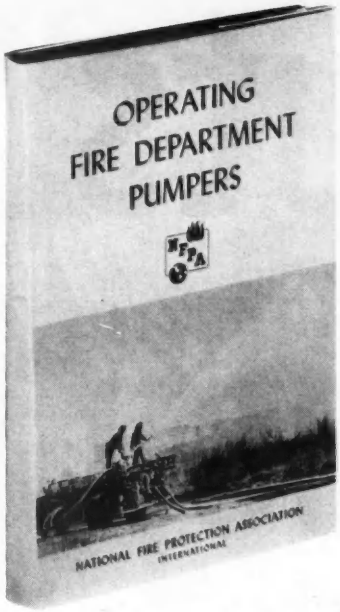
ROCKWOOD SPRINKLER CO.
Portable Fire Protection Division
430 Harlow Street, Worcester 5, Mass.

Please send me your booklet on Rockwood WET.

Name.....
Title.....
Company.....
Street.....
City..... *Zone*..... *State*.....

Announcing . . .

OPERATING FIRE DEPARTMENT PUMPERS



Second edition

Clothbound

180 pages

5½- by 8½-in.

An excellent manual for all who use and operate fire department pumpers

$4.00 per copy

Discount for quantities

In answer to a great many requests by fire service members, the popular book, *Operating Fire Department Pumpers*, has been completely rewritten in a new edition. First published in 1954, this manual has been used widely as a reference and training text for paid, call and volunteer fire departments and fire service training authorities.

The new edition brings together a great deal of up-to-date information, reflecting practical fire ground experience with improved pumping methods and equipment. It also conforms with the most recent changes that have been made in NFPA standards on fire department equipment.

This valuable book has been written specifically for fire department personnel. It presents sound, practical information that fire officers and pumper operators must know to use, care for, and operate pumpers efficiently. The text was reviewed by a special subcommittee which included representatives of the NFPA Committees on Fire Service Training and Fire Department Equipment.

Get your copy today by using the easy order blank below.

CHAPTER HEADINGS

1. The Pumper Operator's Job
2. Getting Familiar with the Pumper
3. Selecting Size of a New Pumper
4. Taking Delivery of a New Pumper
5. Choosing Pumper Layouts
6. Putting Pumper in Service
7. Getting Water
8. Charging Hose Lines
9. Maintaining Pressure
10. Operating a Pumper Smoothly
11. Getting the Most from the Pumper
12. Determining Friction Loss, Pump Pressure
13. Nozzle Pressures and Flows
14. Using Nozzle Tip as a Water Meter
15. Nozzle and Hose Reactions
16. Pumper Suction at High Lifts
17. Supplying Pumper Layouts
18. Relay Pumping
19. Range of "Good" Fire Stream
20. Comparing Area and Flow Capacity of Fire Hose
21. Hydrant Performance
22. Shutting Down
23. Recording the Pumper's Work
24. Maintaining Pumpers

plus . . .

sketches
diagrams
charts
and numerous fire stream tables!

ORDER BLANK

NATIONAL FIRE PROTECTION ASSOCIATION **F-40**
60 Batterymarch Street, Boston 10, Mass.

Gentlemen:
Please send me..... copies of "Operating Fire Department Pumpers" at $4.00 per copy.

Name .....

Address .....

City..... **Zone**.....**State**.....

☐ Please bill me. ☐ Check for.....dollars enclosed.

NFPA FIREMEN

Volume 27 Number 4

A monthly magazine published for the fire service members of the National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts.

Cover Picture

The action at the fire shown on this month's cover is described on page 16 of this issue. (Photo by R. L. Gendron of Montreal.)

Highlights of this Issue

	Page
A "Killer" Detected by Fire Department Persistence	10
Things to Consider When Choosing a Portable Pump	12
LP-Gas Fire Well Handled	16
Simplified Inspection Forms	17
Using Heavy Streams	18
Unique Hydrant Deluge Gun at Whiting	20
Barnstable County Training Center	22
Highlights of the 32nd FDIC	24
How to Get In and Out of Canada	26
Omaha Gets Another Rescue Unit	32
Aircraft Rescue and Fire Fighting Chart	33
Important Fire Service Meetings	34
Firemen's Training in the Months Ahead	36
Some Words About Sparky	38
Membership Report	41
Steel Drill Tower	42
This Month's News and New Products	44
Index to Advertisers	44
Buying New Equipment?	44

The forthcoming 64th NFPA Annual Meeting of the National Fire Protection Association will be held at the Queen Elizabeth Hotel, Montreal, Quebec, May 16–20. Since a number of fire service personnel and NFPA members will be making their first visit to an NFPA meeting, this is a good time to consider how you can "get the most" out of these five days.

The following suggestions may be of help.

1. After you have checked into your hotel, or wherever you plan to stay, pay a visit to the NFPA Registration Desk. This can be reached by taking an escalator to the Convention Floor of the Queen Elizabeth.
2. If you have registered in advance, your identification badge, program, and other materials will be waiting for you. Go to the desk marked "Advance Registration." If you have not registered in advance, go to the long table in the middle of the floor and fill out a registration card. A cashier will be at the end of this table. Registration fee is $10, except for fire department personnel in uniform who can register without charge. After the cashier marks your card, bring it to one of the desks marked "NFPA Registration." Here a badge will be typed for you (and for your wife if you bring her) and you will be given the program and other materials.
3. At this time you might pick up a copy of the Advance Reports of the meeting, since this book contains the revisions of the technical standards proposed for adoption.
4. If your wife is along, make sure that she registers also (no charge) and gets a copy of the Ladies' Program and visits the Ladies' Hospitality Headquarters in the St. Charles Room. An entertaining program has been prepared and she will certainly enjoy meeting the Ladies' Committee and the wives of other NFPA members and guests. She can attend the ladies' social functions while you are attending the general sessions of the meeting.
5. Then examine the Annual Meeting program. Note that there are morning, afternoon and evening sessions, a get-together party, and a luncheon. Check, right away, the program topics that are of particular interest to you. Then plan to take plenty of notes during the week.
6. The Fire Marshals' Section and the Aviation Seminar meet at the same time on Monday. While the first-named has many items of interest to fire service personnel, the Aviation Seminar also has important speakers and topics. On this day, you may have to move between these rooms once or twice to catch certain program features.
7. Go to the "get-together party" on Monday evening, and, of course, bring your wife. Now, this party is held each year so that NFPA members and guests attending the meeting can greet each other, so don't hesitate about saying "hello" to a stranger as well as to your friends.
8. All through the week, many technical standards will be presented for adoption. Sometimes, the adoption is quick and easy; at other times there may be vigorous discussion of the reasons why a standard should or should not be changed. Your Advance Reports will be very useful for reference at these sessions.
9. Make sure that you visit the session on fire prevention education on Thursday afternoon and the program of new motion picture films in the evening. You will find both of these sessions interesting and informative.
10. Be sure to take in the Friday morning session. Some vitally important talks on fire protection have been arranged for this closing session!
11. There will be ample opportunity to tour Montreal during the week. A "Montreal Visitor's Booklet" and other informational material will be available at the NFPA Registration Desk. You probably will make good use of your camera, if you bring one along. (*See page 26 of this issue. — Ed.*)
12. During the week, if you need information on the program items, or if you want questions answered, check with any member of the NFPA Staff at the Registration Desk or on the Convention Floor. They will be at the meeting to help *you*.
13. The NFPA Press Room will have news releases which you can fill out and send to your hometown paper to report that you are attending the Annual Meeting. These will be written in English and French, and you will find them very easy to use.

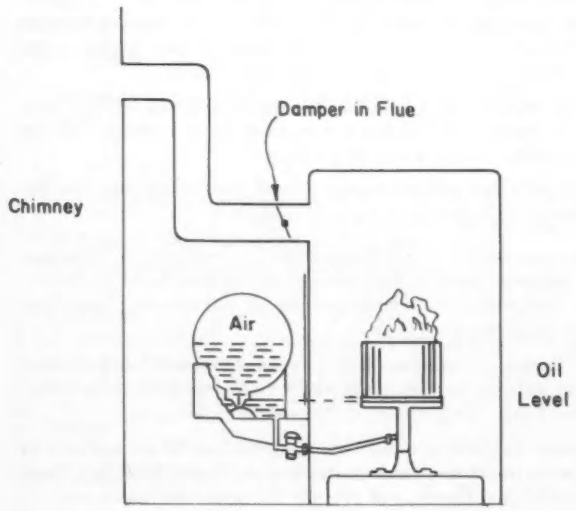
Warren Y. Kimball, Managing Editor; Paul R. Lyons; Editor; Henry S. Gere, Advertising Manager; Dianne Kofman, Editorial Assistant; Shirley Tobey, Fire Service Department; Virginia Stiles, Advertising Department.

A "KILLER" DETECTED BY FIRE DEPARTMENT PERSISTENCE

by Warren Y. Kimball

FIRE fighters in many parts of the United States and Canada have long been aware that faulty or improperly operated heating equipment is responsible for a large proportion of the winter time fires in many communities. A number of standards and regulations have been prepared to safeguard the public from such a hazard. Various types of heating equipment have been designed, tested and approved to keep heating hazards at a minimum. With modern safeguards and automatic controls, dwellings and other buildings that have central heating by oil or gas are relatively safe. Unfortunately, however, in many thousands of cold water flats, tenements and other living quarters, the only heat is provided by a cheap room heater which too often lacks the safety features recommended by fire protection authorities and testing laboratories.

In many New England communities, the majority of oil fired room heaters in use depend upon a barometric oil feed to supply the fuel to the burner. This type of equipment (commonly termed "space heaters" by the public) has been responsible for many serious fires. In the City of Boston an estimated 35,000 such burners are in use in the winter months. Fire department and other municipal officials became greatly concerned when a series of fires involving these heaters resulted in 26 deaths in Massachusetts in one year. Despite pleas to "outlaw" all such appliances it was recognized that residents of tenements, lacking central heating facilities, could not be deprived of their only source of heat during the cold New England winters. Accordingly, under the direction of Fire Commissioner Henry Scagnoli and Chief John A. Martin, the Boston Fire Department undertook an intensive study of room heater fires with the objective of finding how such equipment might be made safe for use by the public.



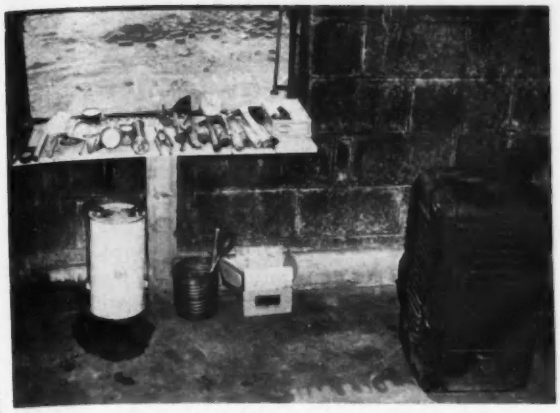
Flue Connected Cabinet Type
Oil Burning Room Heater

The program, under the direction of Assistant Chief of Department John Clougherty, head of the Fire Prevention Division, is one in which all major divisions of the fire department cooperated. The department's oil burner inspectors were put on 24-hr. call to respond to all fires when district chiefs reported room heaters were involved. After each fire a complete case history was obtained, including interrogation of witnesses.

Burners involved in fires were turned over to the Training Division for testing at the department's new fire academy at Moon Island, which facility is under the direct supervision of Assistant Chief William A. Terrenzi, in Charge of Firefighting and Training. The extensive series of tests conducted were directed by Captain-Drillmaster Cornelius Finnegan and Oil Burner Inspectors James McPherson and Alfred Hamel. These tests were designed to duplicate actual fire situations so that study could be made of the various factors contributing to the incidence of fires involving oil fired room heaters. Tests on new heaters, as well as those previously involved in fires, were also included.

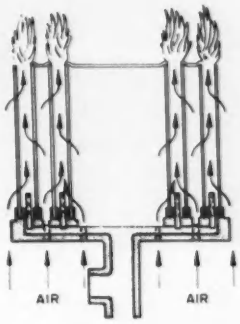
A detailed report of the tests is to be presented by Chief Clougherty to the Fire Marshals Association of North America at the NFPA Annual Meeting in Montreal. Briefly, the initial tests, made to determine the temperatures around the burner when it was in normal operation, showed that the temperatures of the exterior sides of the cabinet exceeded 600° Fahrenheit, temperatures between the protective rear baffle and fuel tank exceeded 140° F, and flue temperatures ranged from 600° F to 700° F, just 18 inches to the rear of the heater.

After determining normal operating temperatures, the burner under test was lighted in a room with the three gallon oil tank half full of cold oil. Very quickly the oil level in the sump beneath the tank increased to a dangerous degree and would overflow if the burner was not shut down immediately and the tank removed. At the same time the fire within the stove would increase in intensity and shortly the oil would overflow the rings inside the stove. Subsequent tests made with varying amounts of oil and air in the tank clearly demonstrated that, when a tank was partly filled with cold oil and cold air, expansion of the air would cause flooding of the burner and oil to overflow from the tank reservoir in a little over three minutes depending upon



Some of the tools and equipment used by the Boston Fire Department in conducting tests on heaters like the one shown at right.

(Right) Typical heater before test showing 3-gallon supply tank, vent pipe and baffle. When oil in the tank expanded it overflowed and went under the heater, as well as flooding the burner inside. Ignition flashed then to oil on the floor. (*Boston Fire Department photos*).



(Left) Sketch of sleeve type burner. Arrows indicate combustion air moving in spaces between perforated metal cylindrical sleeves. Usually solid covers are placed on top of sleeves. Wicks may or may not be in grooves in metal base.

the ratio of oil and air. Because air expands more rapidly under heating than the oil, the situation was found to be more serious when the oil container was less than half full.

Once a lighted burner overflowed, fire spread to the oil on the floor beneath the burner and oil tank and within a short time the oil tank ruptured spraying burning oil throughout the room.

The next objective was to correct the cause of the flooding so that the burners could be made relatively safe to operate. The tests had demonstrated that the thin metal baffles between the burners and their fuel tanks were inadequate to prevent rapid heating of the air in the top of the tanks, even when the lower part of the tank containing fuel was relatively cool. Accordingly, work was begun on a simple inexpensive baffle which would prevent rapid increase of temperatures at the fuel tank and which could be readily installed on the many thousands of heaters of this type already in use. With the assistance of companies manufacturing heat insulating materials, such baffling is in the process of development at the Boston Fire Academy. The fire department is convinced that by next winter, with the help of interested civic and fire protection agencies, this cause of fire which has been responsible for more fire deaths in New England in recent years than any other cause, will be well under control. All branches of the oil industry have pledged their complete cooperation in the attempt to correct the problems involved.

Numerous other facts uncovered in this program of systematic fire investigation and testing will be incorporated into the Boston Fire Department's aggressive fire prevention program. This attack on a leading cause of fires is another demonstration of how a modern fire department combines fire prevention, fire fighting experience and training division staff and facilities to safeguard the lives of the public.

Oxygen and Carbon Dioxide Capsules

A RECENT news release from Ohio State Fire Marshal Wilson M. McLaughlin calls attention to a hazard that should be of serious concern to the fire service. It mentions the similarity of small cylinders containing either carbon dioxide or oxygen. Cylinders with carbon dioxide are used for propelling toy boats, automobiles and other toys. They are available at most hobby shops and if used for this purpose are safe.

However, Fire Marshal McLaughlin points out that both the oxygen and carbon dioxide cartridges are identical in size and are painted green. The only distinguishing characteristic might be simply the labeling of the cylinder with the appropriate content. In addition, it has been discovered that these cylinders are interchangeable, that is, the carbon dioxide cylinder could be used on oxygen equipment and the oxygen cylinders could be used on carbon dioxide equipment. In other words, it would be possible at present for some one to use one of these carbon dioxide cartridges on an oxygen mask, possibly causing death to the wearer.

The Ohio State Fire Marshal bulletin pointed out that a 14-yr.-old boy recently lost three fingers of his right hand when he placed a 3,000 cc. oxygen cylinder into a BB pellet gun designed to be actuated by a 3,000 cc. carbon dioxide cylinder. The pistol exploded into 47 pieces.

It would be helpful if fire departments contact all toy manufacturers and distributors in their areas to point out this possible hazard. In addition, the fire departments and rescue squads should instruct all their members on the similarity of oxygen and carbon dioxide cylinders of this size, to make certain that the carbon dioxide cylinders are not used at any time on respiratory or resuscitation equipment.

Hale Fire Pump Company
Conshohocken, Pennsylvania

Model FZZ
Size — 21 in. long, 22 3/16 in. wide, 23 5/16 in. high
Type — Centrifugal
Weight — 190 pounds
Output Range — 100 gpm at 72 pounds; 60 gpm at 90 pounds
Connections — 2½-in. suction, two 1½-in. discharge
Body — Semi-steel cast iron
Engine — Briggs & Stratton 9 hp, single cylinder, 4 cycle, air cooled

---

What does it weigh? How big is it?
How much water will it move?
At what pressures? Connections?

THINGS TO CONSIDER WHEN CHOOSING A PORTABLE PUMP!

MODERN portable pumps which give dependable service can be used in a variety of ways by fire departments. In rural and forest areas, in particular, a portable pump becomes a valuable piece of equipment for moving water to the scene of fire fighting action. For example, a portable pump of adequate capacity can be used for filling booster tanks, tank trucks, or portable tanks, for relaying water or boosting water to elevated heights, for supplying direct hose streams or for removing water from basements of buildings.

Before a fire department buys a portable pump, someone should give consideration to how that pump will be used. Certain pumps are designed to move a small volume of water at high pressure. Others move large volumes at low pressure. Then there are portable pumps which give capacity and pressures between these extremes. As with any other equipment, a portable pump gives best performance when it is used in the kind of job for which it was designed.

For fire department service, a portable pump must have several basic features: it must be light enough so that it can be carried easily by one or two men; it must be easy to start and operate continuously and it must produce the necessary volume and pressures for the particular fire fighting job. In the control of certain brush and forest fires, lightweight, small volume portable pumps that produce a relatively high pressure can be used for pumping the water uphill or supplying small hand lines. If a portable pump is needed for small structural fires, it must provide a larger volume of water so that it can supply a length of 1½-in. hose. A portable pump used merely for filling a tank truck or perhaps dewatering a cellar should be able to deliver a much larger volume but the pressure requirement would be low.

Because of the variety of portable pumping units now available for use by the fire service, the NFPA Committee on Fire Department Equipment in 1959 revised Standard No. 191. In making a complete change of the previous standard, the Committee attempted to do two things: One, to classify portable pumping units into five groups representing, generally, the various uses which fire departments would require of these units. Two, to establish some basic specifications for portable pumps to which fire departments could refer when purchasing this equipment.

The five classifications of these units are: small volume, relatively high pressure; medium volume, medium pressure; large volume, relatively low pressure; medium volume, relatively high pressure; and extra large volume, medium pressure.

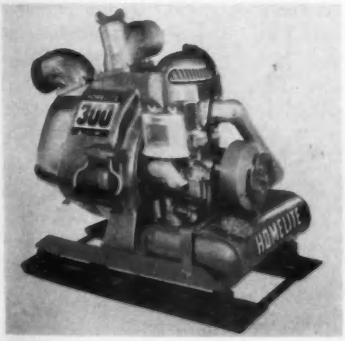
Small volume, relatively high pressure portable pumps would be especially useful for forest fire fighting which requires the use of long 1½-in. hose lines and pumping uphill. Medium volume, medium pressure pumps have some usefulness for handling small structural fires and can supply a good stream from a ½-in. nozzle tip on 250 feet of 1½-in. hose. This pump can also be used for filling booster tanks, portable tanks or tank trucks or it might even move water for quite a distance through 2½-in. hose. Large volume, relatively low pressure pumps are frequently used for filling tanks when a pumper cannot get close to the source of water. These portable pumps also have good

Some of Standard No. 191's Recommendations for Portable Pumps

Type	Volume	Pressure	Connections	Size	Maximum Weight	Recommended Accessories
Small volume relatively high pressure (Paragraph 101)	15 to 20 gpm at	200 psi	1-inch discharge outlet 1½-inch suction inlet	Max. Height 25 inches Max. Width 25 inches Max. Length 25 inches	175 lbs.	
Medium volume medium pressure (Paragraph 102)	50 gpm at.... 100 gpm at....	90 psi 60 psi	1½- or 2½-inch discharge outlet 2½-inch suction inlet	Max. Height 25 inches Max. Width 25 inches Max. Length 25 inches	150 lbs.	A gated wye with two 1½-inch outlets
Large volume relatively low pressure (Paragraph 103)	100 gpm at.... 250 gpm at....	50 psi 20 psi	2½-inch discharge outlet 3-inch suction inlet	Max. Height 25 inches Max. Width 25 inches Max. Length 25 inches	150 lbs.	A gated wye with two 1½-inch outlets
Medium volume relatively high pressure (Paragraph 104)	90 gpm at.... 160 gpm at....	250 psi 90 psi	Two 1½-inch or one 2½-inch discharge outlets, one 2½-inch or one 3-inch suction inlet	Max. Height 30 inches Max. Width 22 inches Max. Length 56 inches	200 lbs.	A gated wye with two 1½-inch outlets
Extra large volume medium pressure (Paragraph 105)	500 gpm at.....	100 psi	Two 2½-inch discharge outlets One 4½-inch suction inlet	Max. Height 25 inches (fuel tanks not included) Max. Width 33 inches Max. Length 38 inches	200 lbs.	

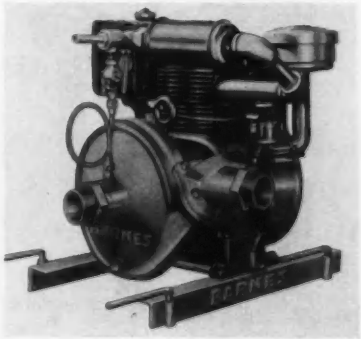
capacity for dewatering cellars and manholes. Medium volume, relatively high pressure pumps are heavier units which can be used to give a direct supply to small lines for fighting forest and structural fires. Extra large volume, medium pressure pumps have the output of some motorized pumpers and can supply up to 500 gpm at 100 pounds pump pressure.

The size and capacities of these pumping units established in specifications of Standard No. 191 are shown in the table at the top of this page. The standard mentions that centrifugal portable pumps generally are to be preferred because they can handle sandy or dirty water with less damage and because increased volume is available with a reduction in pressure. Similarly, four cycle engines are preferred although two cycle engines and gas turbine-powered portable pumps are also used. Suction and discharge connections of portable pumps used by the fire service are required to have American (National) Standard male fire hose thread with caps. The pump body must be able to withstand a hydrostatic pressure of 100 pounds per square inch over rated operating pressure and the pump



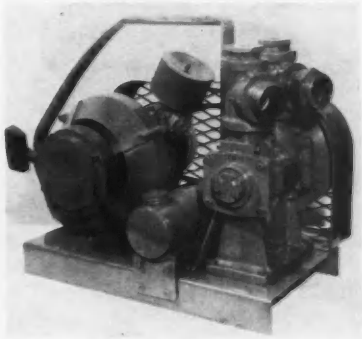
Homelite, Division of Textron, Inc.
Port Chester, New York

"300" series Model 853–IP
Size — 25 in. long, 19 in. wide, 23 in. high
Type — Self priming centrifugal
Weight — 103 pounds
Output Range — 157 gpm at 40 pounds; 70 gpm at 70 pounds
Connections — 3-in. suction, 3-in. discharge
Body — Aluminum alloy
Engine — Homelite single cylinder, 2 cycle, air cooled



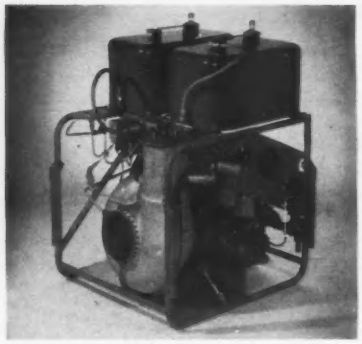
Barnes Manufacturing Company
Mansfield, Ohio

"Fire Fighter" — Model AGH–23FB–FF
Type — Single stage centrifugal
Weight — 170 pounds
Output Range — 100 gpm at 60 pounds; 50 gpm at 90 pounds
Connections — 2½-in. suction, 2½-in. discharge
Body — Cast aluminum
Engine — Briggs & Stratton 8.25 hp single cylinder, 4 cycle, air cooled



Goodyear Pumps, Inc.
9 Rockefeller Plaza
New York 20, New York

Model 2F7
Size — 17 in. high, 13 in. wide, 22 in. long
Type — Positive displacement
Output Range — 50 gpm at 100 psi
Connections — 1½-in. suction, 1½-in. discharge
Body — Aluminum alloy or bronze
Engine — Lanson 5 hp, single cylinder, 2 cycle

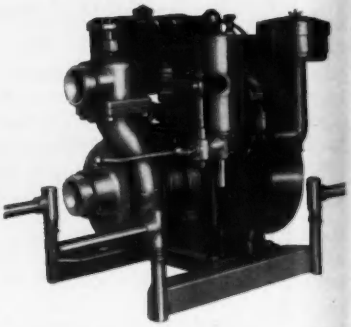


Solar Aircraft Company
San Diego 12, California

Mars Model T–45M–8
Size — Approximately 27 in. long, 24 in. wide, 25 in. high (without fuel tanks)
Type — Centrifugal
Weight — 172 pounds
Output Range — 500 gpm at 100 pounds (16-ft. lift) to 700 gpm at 100 pounds (0 lift)
Connections — 4-in. suction, two 2½-in. discharge
Body — Tubular steel frame supports engine, panel board and fuel tanks
Engine — Mars 50 hp gas turbine

Hale Fire Pump Company
Conshohocken, Pennsylvania

Model FZ
Size — 20⅝ in. long, 22⅜ in. wide, 23⅜ in. high
Type — Centrifugal
Weight — 148 pounds
Output Range — 300 gpm at 18 pounds; 85 gpm at 60 pounds
Connections — 3-in. suction, 2½-in. discharge
Body — Aluminum
Engine — Briggs & Stratton 9 hp, single cylinder, 4 cycle, air cooled



W. S. Darley & Company
2810 Washington Boulevard
Chicago 12, Illinois

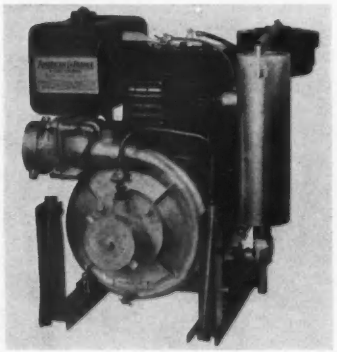
Model 1½AE5½B
Type — Centrifugal
Weight — 95 pounds
Output Range — 175 gpm at 10 pounds, 75 gpm at 60 pounds
Connections — 2½-in. suction, two 1½ in. discharge
Body — Cast aluminum
Engine — Briggs & Stratton*, air cooled
*Different horsepower for different size pumps

casing should be designed so that it can be taken apart easily for inspection and replacement of parts.

Pump impellers should be of corrosion-resistant metal. The portable pump also needs a priming device capable of priming the pump within 30 seconds when it is operating at a 10-foot lift with 20 feet of suction hose. The engine should be air-cooled for light weight and simplicity. A governor is needed to control maximum speed to the manufacturer's specified safe limits in the event of loss of prime. A hand throttle is also needed for adjusting the speed and the load and it is essential that the throttle hold its position unattended and does not affect the function of the governor. One or more fuel tanks of sufficient size should be provided with the pump so that it can operate at capacity for at least one hour without refilling. It is also important

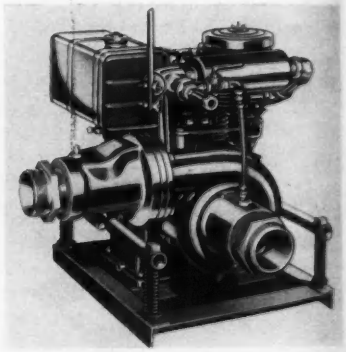
W. S. Darley & Company
2810 Washington Boulevard
Chicago 12, Illinois

Model 1¼AGE9B
Type — Centrifugal
Weight — 158 pounds
Output Range — 150 gpm at 50 pounds, 25 gpm at 150 pounds
Connections — 2½-in. suction, two 1½-in. discharge
Body — Cast aluminum
Engine — Briggs & Stratton*, air cooled
*Different horsepower for different size pumps



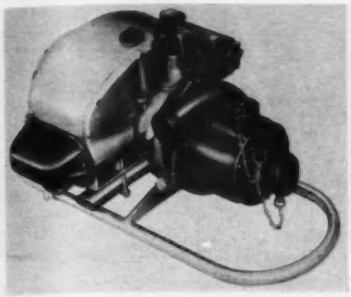
American LaFrance Corporation
Elmira, New York

Model DC
Size — 20 in. long, 22 in. wide, 22 in. high
Type — Centrifugal
Weight — 130 pounds
Output Range — 250 gpm at 15 pounds, 50 gpm at 90 pounds
Connections — 2½-in. suction, 2½-in. or 1½-in. discharge
Body — Cast aluminum alloy
Engine — Briggs & Stratton 9 hp, 4 cycle engine, air cooled



The Gorman-Rupp Company
Mansfield, Ohio

Model 6201 — "Dual Fire Fighter"
Size — 22 in. long, 22 in. wide, 26 in. high
Type — Centrifugal
Weight — 162 pounds
Output Range — 100 gpm at 80 pounds, 80 gallons at 88 pounds
Connections — 2½-in. suction, two 1½ in. discharge
Body — Aluminum
Engine — Briggs & Stratton 8.25 hp, Model 23 FB, air cooled

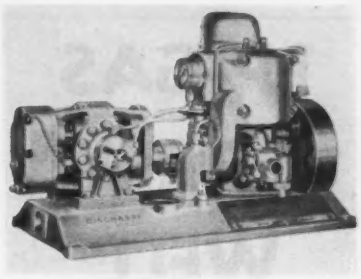


Watson Jack-Hopkins Limited
Division of B. J. Coghlin Company
8500 Decarie Boulevard
Montreal, Quebec, Canada

Mark I Centrifugal High Pressure
Size — 13 in. high, 18¾ in. wide, 29 in. long
Type — 4 stage centrifugal
Weight — 71 pounds
Output Range — 88 gpm at 50 pounds; 12 gpm at 275 pounds
Connections — 2-in. suction, 1½-in. discharge
Engine — 9 hp, 2 cylinder, 2 cycle, air cooled

Terry Machinery Company Ltd.
1240 Boulevard Laurentian
Montreal 9, Quebec, Canada
(Also available from Homelite)

Terry Model T7
Size — 20¼ in. long, 13⅞ in. wide, 13½ in. high
Type — 4 stage centrifugal
Weight — 37 pounds
Output Range — 60 gpm at 50 pounds; 8 gpm at 250 pounds
Connections — 1½-in. suction, 1½-in. discharge
Engine — Homelite single cylinder, 2 cycle, air cooled

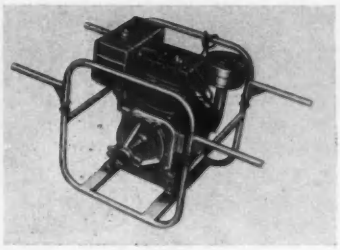


Pacific Marine Supply Company
1213-1223 Western Avenue
Seattle 1, Washington

Type "Y" Pacific Pumper
Size — 15¼ in. high, 12 in. wide, 24 in long
Type — Positive displacement, rotary type, self priming
Weight — 70 pounds
Output Range — 100 gpm at 63 pounds; 20 gpm at 225 pounds
Connections — 1½-in. suction, 1½-in. discharge IPT
Body — Aluminum
Engine — 9.8 hp, 2 cylinder, 2 cycle, water cooled

that the fuel tank be designed so that it can be either refilled or replaced safely while the pump is operating.

A selection of typical portable pumps available on today's market is shown on these pages. As indicated by the captions, some of the manufacturers make portable pumps within requirements of several classifications in Standard No. 191. Before purchasing a portable pump, fire departments should get a copy of this standard, study its recommendations for performance and the suggested specifications, then select the size of pump that suits the department's particular needs. Fire departments can obtain copies of this standard for 35 cents each by writing to the NFPA Publications Department. Detailed information on the pumps shown on these pages can be obtained by writing to the manufacturers at the address under the pictures.



The F. E. Myers & Brother Company
Ashland, Ohio

Myers No. FS–100–P–Submersible
Type — Multistage centrifugal
Weight — Pump and cable 85 pounds, engine 98 pounds
Output Range — 106 gpm at 40 pounds; 57 gpm at 120 pounds
Connections — Screened suction, 2-in. discharge
Body — Cast aluminum
Engine — Briggs & Stratton 9 hp, with ¾-in. standard steel drive cable

Apparatus Manufacturer Expands Facilities

American Fire Apparatus Company of Battle Creek, Michigan, has expanded its production facilities at its Marshalltown, Iowa, plant. This is the second expansion since the plant was established in 1955. Fire department chiefs and officers are invited to visit the plant when they are in the vicinity.

Oklahoma Manual on Officer Training

A NEW volume in the Oklahoma training series has been compiled by Everett Hudiburg and R. J. Douglas of the Department of Fire Protection Technology of Oklahoma State University. The pamphlet will be helpful to an understanding of the activities of a fire department officer. It was validated by the International Fire Service Training Association for use in twenty-seven of the United States and four provinces of Canada. The book issued with a 1960 date, has 88 pages, is 8½ by 11 inches, paper covered.

Copies may be purchased through the usual distributors for this series of fire department texts in the various states and provinces, or orders may be sent directly to the Fire Protection Department, Oklahoma State University, Stillwater, Oklahoma. The price postpaid to points in the United States is $2.50. For mailings of individual copies to Canada add 45 cents, to England 50 cents, and to South American countries 78 cents.

LP-GAS FIRE WELL HANDLED

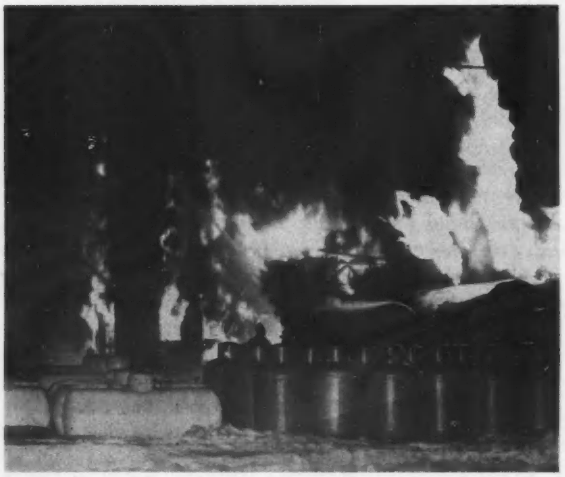
Scene on the fire ground at the height of the LP-Gas bottling plant fire.

"Let me point out that we extinguished the fire in two hours and I can assure you all the demonstrations and explanations of propane gas fires given in the Province of Quebec firemen's training program last year were really profitable in this case." — *Henry C. Panet*

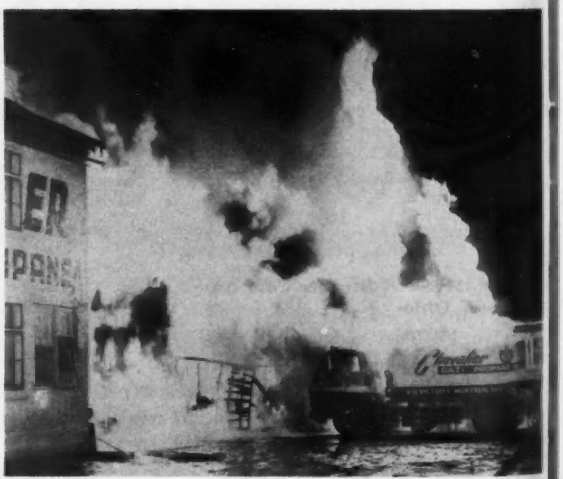
THIS month's cover and the pictures on this page show a spectacular fire at an LP-Gas bottling plant in Montreal, Quebec, on January 25. Despite the fact that the fire threatened six filled LP-Gas tank trucks and 300 cylinders, fire fighters from the Montreal, the Longueuil, and Jacques-Cartier Fire Departments extinguished the blaze with good tactics. In addition, three of the tank trucks were driven to safety before becoming involved. Relief valves on the other trucks opened and escaping gas ignited but fire fighters used hose streams to cool the tank trucks and employees managed to uncouple trailers from two tractor trailer units and drive the tractors to safety. The other tractor was headed in and could not be saved.

The statement above is from a report of this fire submitted to the NFPA Fire Record Department by Henry C. Panet, president, Quick Propane Gas Company, Limited, in Jacques-Cartier. The fire fighters did an excellent job in handling this situation. The fire originated in an unsprinklered, two-story masonry, wood-joisted cylinder paint shop and spread rapidly out of control when barrels of alcohol became involved and ruptured. Three engine and three ladder companies and a rescue squad responded and there was good coordination between the fire department action and the work of the plant employees. Hose streams were directed on the cargo tank trucks as they were pulled out by a winch cable on a crane. The excess flow valves on top of the trucks operated and flames went 150 feet in the air. Other streams were directed between the two closely exposed buildings. The 300 cylinders were protected principally by a cement wall.

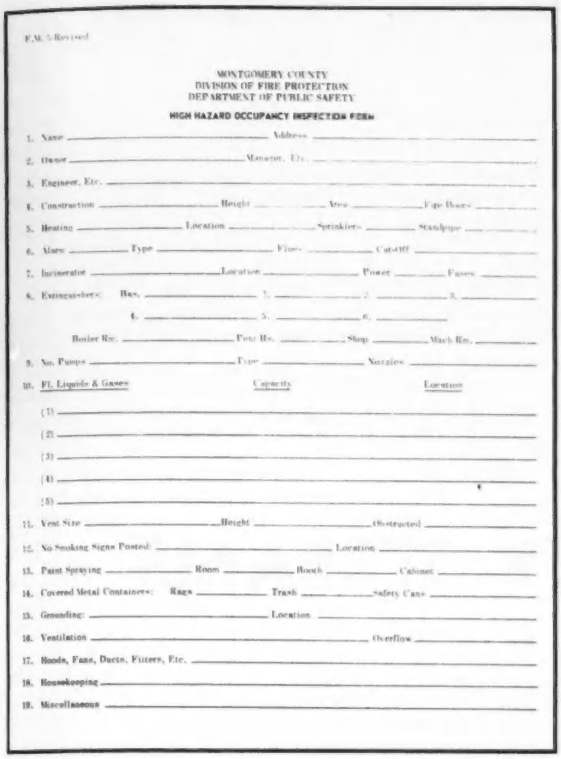
The fire was extinguished in two hours. On the following day approximately 10,000 gallons of LP-Gas were pumped out of the three cargo tanks that were exposed throughout the fire. With the exception of the one destroyed tractor, all tractors and semitrailers were checked and back in service in two weeks.



The LP-Gas containers in the foreground were pretty well protected by a cement wall but hose streams were used for cooling.



This shows the intensity of the fire that involved trucks and the bottling plant building. *(All photos by R. L. Gendron of Montreal.)*

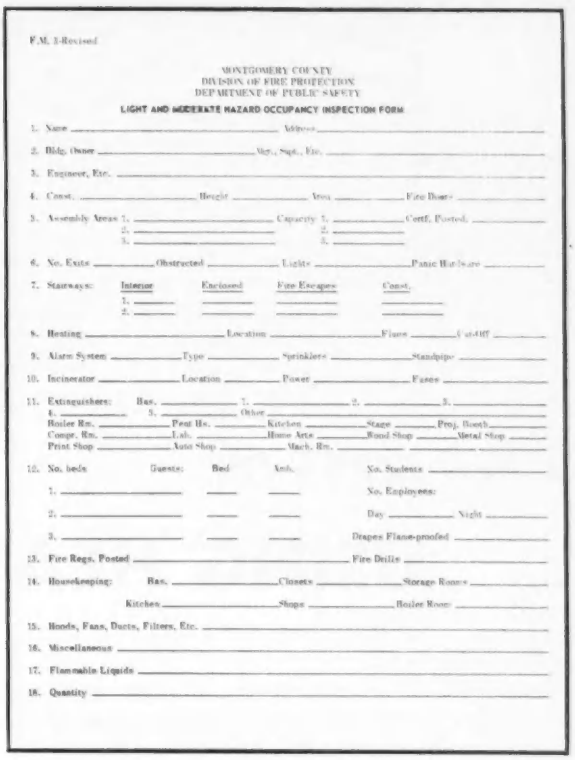


F.M. 5-Revised

MONTGOMERY COUNTY
DIVISION OF FIRE PROTECTION
DEPARTMENT OF PUBLIC SAFETY

HIGH HAZARD OCCUPANCY INSPECTION FORM

1. Name _____ Address _____
2. Owner _____ Manager, Etc. _____
3. Engineer, Etc. _____
4. Construction _____ Height _____ Area _____ Fire Doors _____
5. Heating _____ Location _____ Sprinklers _____ Standpipe _____
6. Alarm: _____ Type _____ Floor _____ Cut-Off _____
7. Incinerator _____ Location _____ Power _____ Fusee _____
8. Extinguishers: Bas. _____ 1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____
Boiler Rm. _____ Pent Hs. _____ Shop _____ Mach. Rm. _____
9. No. Pumps _____ Type _____ Nozzles _____
10. Fl. Liquids & Gases — Capacity — Location
(1) _____
(2) _____
(3) _____
(4) _____
(5) _____
11. Vent Size _____ Height _____ Obstructed _____
12. No Smoking Signs Posted: _____ Location _____
13. Paint Spraying _____ Room _____ Booth _____ Cabinet _____
14. Covered Metal Containers: Rags _____ Trash _____ Safety Cans _____
15. Grounding: _____ Location _____
16. Ventilation _____ Overflow _____
17. Hoods, Fans, Ducts, Filters, Etc. _____
18. Housekeeping _____
19. Miscellaneous _____



F.M. 3-Revised

MONTGOMERY COUNTY
DIVISION OF FIRE PROTECTION
DEPARTMENT OF PUBLIC SAFETY

LIGHT AND MODERATE HAZARD OCCUPANCY INSPECTION FORM

1. Name _____ Address _____
2. Bldg. Owner _____ Mgr., Supt., Etc. _____
3. Engineer, Etc. _____
4. Const. _____ Height _____ Area _____ Fire Doors _____
5. Assembly Areas 1. _____ Capacity 1. _____ Certf. Posted: _____
2. _____ 2. _____
3. _____ 3. _____
6. No. Exits _____ Obstructed _____ Lights _____ Panic Hardware _____
7. Stairways: Interior — Enclosed — Fire Escapes — Const.
1. _____ _____ _____ _____
2. _____ _____ _____ _____
8. Heating _____ Location _____ Fluxe _____ Cut-Off _____
9. Alarm System _____ Type _____ Sprinklers _____ Standpipe _____
10. Incinerator _____ Location _____ Power _____ Fusee _____
11. Extinguishers: Bas. _____ 1. _____ 2. _____ 3. _____
4. _____ 5. _____ Other _____
Boiler Rm. _____ Pent Hs. _____ Kitchen _____ Stage _____ Proj. Booth _____
Comp. Rm. _____ Lab. _____ Home Arts _____ Wood Shop _____ Metal Shop _____
Print Shop _____ Auto Shop _____ Mach. Rm. _____
12. No. beds — Guests: — Bed — Amb. — No. Students _____
1. _____ No. Employees:
2. _____ Day _____ Night _____
3. _____ Drapes Flame-proofed _____
13. Fire Regs. Posted _____ Fire Drills _____
14. Housekeeping: Bas. _____ Closets _____ Storage Rooms _____
Kitchen _____ Shops _____ Boiler Room _____
15. Hoods, Fans, Ducts, Filters, Etc. _____
16. Miscellaneous _____
17. Flammable Liquids _____
18. Quantity _____

SIMPLIFIED INSPECTION FORMS

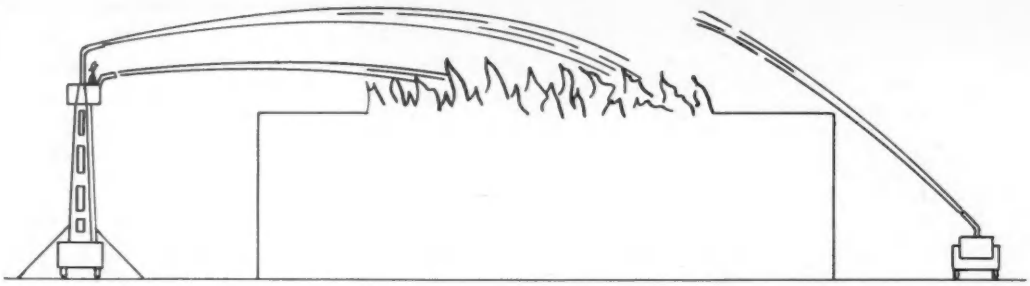
FIRE marshals and other fire prevention bureau personnel often find it necessary to revise the forms used for reporting the inspection of various occupancies. In fact, the "universal" inspection form which would describe adequately the extent of good fire protection in all occupancies seems to be the goal of everyone. For a number of reasons, however, a single report form or check list never seems to provide *all* the needed information. Generally a supplementary report of some sort is necessary.

As mentioned in the NFPA Inspection Manual, every inspection should be followed by some sort of written report which can be referred to by the fire prevention bureau and fire officers. The details required will depend upon the character and purpose of the inspection. In general, however, the report should cover at least the following items:

Date of inspection; name of inspector; name and address of property, with notation of name and title of man interviewed; name and address of owner (or agent if at a different location); names of tenants in a building of multiple occupancy (but not necessarily including, for example, every tenant in an apartment house or office building); class of occupancy (garage, school, warehouse or others). If mixed occupancy, state each principal occupancy and its location. For industrial plants, state the principal items of raw material and finished product; dimensions of buildings, including heights, and type of construction (wood frame, brick joisted, fire-resistive or other); factors making fire spread possible inside buildings (stairways, elevator shafts and other vertical openings, lack of vertical and horizontal cutoffs); common fire hazards; special fire hazards; extinguishing and alarm equipment; organization of employees for fire safety; adequacy of exits; exposures, including communications between buildings; and recommendations or notations of violation of law.

As the manual points out, standardized or uniform report forms are practical for classes of property which are essentially alike and which can be covered by uniform reporting. If no particular report form is used for initial inspections, a check list can be prepared to be followed in subsequent inspections or reports. Sketches of a property should always be made during the original inspection.

As an example of useful check lists, on this page we show two inspection forms which were developed recently by Fire Marshal Charles H. Howe, Jr., of Montgomery County, Maryland. Marshal Howe found that it was better to have separate inspection forms for high hazard occupancies and for light and moderate hazard occupancies. These forms are mimeographed on 8½- by 11½-in. red and green sheets and are designed to provide desired information on certain features of each occupancy. On the back of each form is space for listing the date of inspection, the name of the violations inspectors found, date of extension, and essential general information.



Tower with two mast nozzles working on a major fire in a large area solid walled structure. This provides several thousand gallons per minute to reduce heat and exposure hazard. Note relative ineffectiveness of streams from deck gun at low elevation.

A NEW SERIES ON

USING HEAVY STREAMS

Part I

by Warren Y. Kimball, managing editor, FIREMEN Magazine, and manager, NFPA Fire Service Department.

HEAVY streams are often needed to control large fires. However, such fires are relatively infrequent in many communities and procedures for developing heavy streams quickly and effectively are not studied and practiced as much as their importance warrants.

Every fire department should be ready to develop the maximum stream capabilities which its water supplies and pumping capacity permit. Many useful heavy stream devices are available. Each has a special usefulness as well as certain limitations.

In fighting fire with heavy stream devices three factors are usually involved:

1. Placing the stream or streams for maximum effectiveness.
2. Providing the volume of water needed for proper operation.
3. Getting sufficient pressure to the nozzle.

Generally, fire departments years ago understood these requirements and did a better job at developing heavy streams than most departments have done in recent years, when primary emphasis has been placed on fast attack with small lines. The latter is an essential technique but does not replace the need for the "heavy stuff" to control big fires.

One of the prime mistakes often made at major fires is to attempt to set up more streams than can be properly supplied. A lesser number of heavy streams, placed and operated to cool the fire and prevent its spread, is much better than a larger number of streams that lack effective volume and pressure.

In our discussion of heavy streams we will consider water towers, ladder pipes, monitors and turrets. Some departments have all of these devices while others have only a limited heavy stream arsenal. However, each department should be prepared to make full use of its heavy stream potential. Even a 2½-inch hand line feeding a street pipe, playpipe, or nozzle with a large tip, properly secured and directed, has considerable heavy stream potential.

Basically, a heavy stream is one flowing upward of 500 gallons per minute from a stationary device. Nozzle pressures should be around 100 pounds per square inch and not much under 80 psi. Generally, two to four big lines under suitable pressure are needed to supply heavy stream devices.

In previous issues of FIREMEN and in the new NFPA manual *Operating Fire Department Pumpers* we have discussed the flows available from various sizes of large nozzle tips. NFPA has also published data on large capacity fog nozzles which may be used for heavy stream service under certain circumstances.

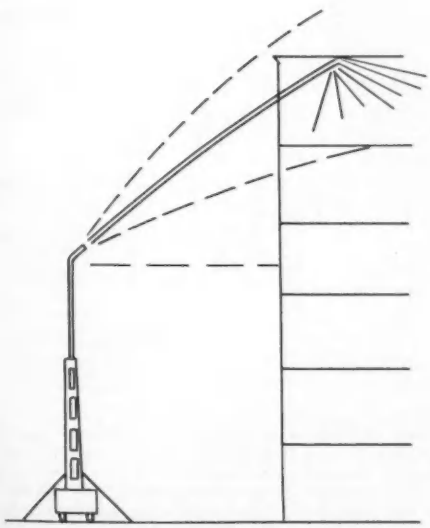
Many persons familiar with the problems of handling large fires believe that more attention must be given to the development and operation of effective master stream equipment. In some areas, streams up to 2500 gpm each may be needed to control intense, large fires where the reach and cooling capacity of ordinary hose streams is inadequate.

For many years a basic concept was that heavy stream equipment should respond during the early stages of fires in areas of high fire potential and, if possible, be set up ready for operation before a fire spread beyond control of the initial attack with hand lines. For this reason, a number of large fire departments send heavy stream apparatus on first alarms in high value areas and on multiple alarms elsewhere.

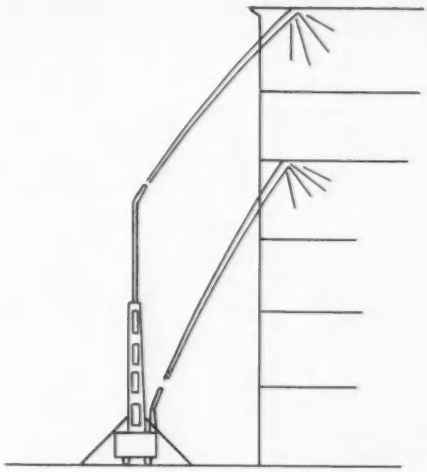
Heavy stream service should not depend entirely upon the companies which are intended to provide normal engine and ladder company duty because these will be busy with other fire fighting duties. Rather, the normal response to working fires and multiple alarms should be supplemented by additional units as needed to provide ample master streams to back up the initial attack. A properly designed and equipped water tower may be a valuable weapon in the heavy stream arsenal.

Water Towers

Water tower trucks have been defined as "vertical standpipes" for supplying one or more elevated streams through large nozzles. These towers came into vogue in the 1880's when higher mercantile and loft buildings of combustible construction were being built. In the early 1900's most fire departments who wanted to be considered in the "big city" class had at least one water tower. In recent years the number of water towers has been greatly reduced. There have been a number of reasons for this. First, improved construction and better private protection has reduced the number of fires of the type where use of water towers might be advantageous in the average city. Introduction of power-operated metal aerial ladders has made it possible to apply elevated streams very quickly. The greatest reason for reduction in water tower service has been the economic factor. In the days when towers were most popular, fire fighters were on continuous duty and received salaries averaging about $100 a month. Thus, a tower could be manned for about $2,400 a year. Today, with the prevailing hours and wages, the same fire departments would require 6 to 8 men with salaries averaging perhaps $5,000 to $6,000, making the cost of regularly manning a single tower with two men on duty approximately $30,000 to $50,000 per year. As a tower may be used only once or twice a year on the average, it has been found difficult to justify this expense and only about half of the cities retaining water towers have regular crews.



Tower is placed and mast elevated so that stream will enter fire area at approximately a 45 degree angle for good penetration and break up. This stream would also be effective on the floor below as well as above the roof if desired.



Tower too close to building to provide good penetration of streams. Apparatus in this position would also be endangered by falling walls.

Cities still owning water towers include Albany, Baltimore, Birmingham, Boston, Chicago, Cincinnati, Fargo, Hartford, Houston, Indianapolis, Jersey City, Knoxville, Lawrence, Los Angeles, Louisville, Memphis, New Orleans, New York, Omaha, San Francisco, St. Joseph, St. Paul and Syracuse.

Cities formerly having towers which were eliminated include Atlanta, Buffalo, Cleveland, Dallas, Detroit, Lowell, Newark, Norfolk, Springfield (Mass.), Seattle, Philadelphia, Providence, Richmond, Roanoke, Rochester, St. Louis, Washington and Worcester. Some cities have lost towers to falling walls at fires.

Chicago has recently placed a new type of tower unit in service consisting of a hydraulically operated elevated platform and dubbed a "Snorkel." The platform can be moved vertically and horizontally giving a considerable range of operation to the elevated stream.

Water towers have been constructed with masts extending to heights of 55, 65 or 75 feet. Most towers were designed for operation with the mast extended vertically, although a few were designed to operate with the mast inclined toward the fire building in the manner of an aerial ladder. A few towers had crow's-nests which permitted a hoseman to observe and direct the stream from a position near the main mast.

In addition to the principal mast nozzle, a number of towers have auxiliary mast pipes, making it possible to apply a battery of elevated streams from a single water tower truck. In addition, most water towers have one or two large deck guns supplied by the manifold or by separate siamese connections. Most towers have from three to a dozen connections for supply lines. Generally, three or four 2½-inch or 3-inch lines provide sufficient supply for the principal mast nozzle which is equipped with a 1¾-inch or a 2-inch tip. Several cities have recently rebuilt and modernized their old water towers. Some water tower trucks also have hose discharge gates, fed by the manifold, so that the truck can be used as a water distributor, particularly when the mast nozzle is not needed. Most towers are either spring raised or hydraulically raised by water pressure from hose lines.

The new lightweight, portable turret nozzle is demonstrated at the Whiting, Indiana, plant. After being positioned, the nozzle does not need to be attended.

UNIQUE HYDRANT DELUGE GUN AT WHITING

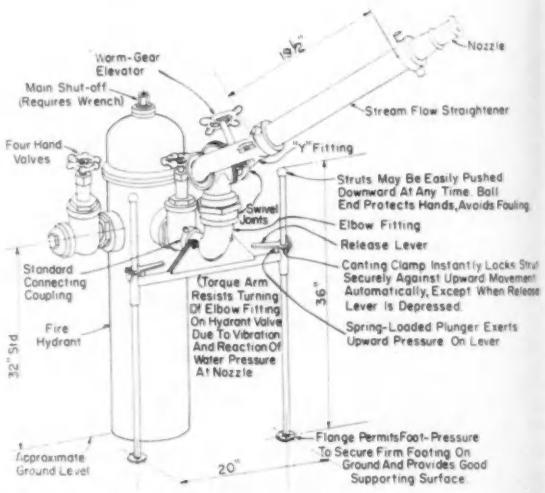
THE huge petroleum refinery of Standard Oil Company in Whiting, Indiana, maintains high standards of plant fire protection. The refinery covers 1,100 acres and has 6,800 employees, including a well-trained plant fire brigade headed by Chief Fire Marshal Frank Horlbeck. Basically, the brigade consists of three trained crews (20 men per shift) who respond with apparatus to every fire alarm. In addition, hundreds of other employees at the plant have received training in fire control and supplement manpower response on serious fires.

The refinery features a looped system of high pressure water mains including eleven stationary fire pumps with a total capacity of 28,200 gpm. There are 484 fire hydrants, 136 portable heavy stream nozzles, 648 stationary hose reels, 15 wet sprinkler systems, 12 dry sprinkler systems, and 3 tanks which store 8 million gallons of water. For fire alarms and response purposes the plant area is divided into 12 zones. If a major fire starts on the property, all normal use of the high pressure water system is stopped immediately except for supplying fire department apparatus and the pressure is boosted to 175 pounds. If the brigade's first alarm crews cannot control the fire, an additional response of 60 to 80 trained men is immediately available for support. If the fire is of such nature that it would require larger response, then the plant's steam whistle blasts a special call which summons on-duty and off-duty personnel. As many as 3,000 employees have responded to a fire emergency.

One of the recent developments at the Whiting plant is shown on this page. It is a new lightweight portable heavy stream nozzle which can be adapted to any fire hydrant so that a stream can be directed into nearby structures or areas. The aluminum turret nozzle assembly was made by J. M. Baker Pattern Company of 68 Sprague Street, Providence, Rhode Island.

As pointed out in NFPA Standard No. 24 — "Outside Protection" — heavy stream nozzles provide good fire protection in many plant areas by supplying large quantities of water at effective pressures. Portable heavy stream nozzles can be used with good effect. One advantage to this particular hydrant nozzle assembly at Whiting is that the nozzle does not have to be attended after the stream is in action and positioned for best effect.

The Whiting refinery also features a special fire training area. In one recent year more than 1,000 men attended the training sessions held outdoors weekly from May to November. This nozzle and other extinguishing equipment recently were demonstrated to Standard Oil Company fire marshals from plants outside of the Whiting area.


Nozzle
Worm-Gear Elevator
Main Shut-off (Requires Wrench)
Stream Flow Straightener
Four Hand Valves
"Y" Fitting
Struts May Be Easily Pushed Downward At Any Time. Ball End Protects Hands, Avoids Fouling
Swivel Joints
Elbow Fitting
Release Lever
Canting Clamp Instantly Locks Strut Securely Against Upward Movement Automatically, Except When Release Lever Is Depressed.
Standard Connecting Coupling
(Torque Arm Resists Turning Of Elbow Fitting On Hydrant Valve Due To Vibration And Reaction Of Water Pressure At Nozzle
36"
Spring-Loaded Plunger Exerts Upward Pressure On Lever
Fire Hydrant
32" Std
Approximate Ground Level
20"
Flange Permits Foot-Pressure To Secure Firm Footing On Ground And Provides Good Supporting Surface.

The general engineering department of the Whiting plant drew this sketch of the adjustable support for a portable nozzle turret used on fire hydrants. Description mentioned that no bolts or fasteners are required for installation except for one coupling on the fire hydrant which can be secured by a fire hose coupling wrench. The supporting frame is bolted to two existing plugs on an aluminum elbow fitting for a permanent assembly. The frame is made of 18-8 stainless steel construction to resist corrosion. According to reports it is easy to operate, handle and store. Total weight of complete assembly is 26 pounds. The frame was designed and made by the Standard Oil Company. *(From a sketch by C. J. Schroeder.)*

The original... and still the finest!

The HALE FZZ FZ Portable FIRE PUMPING UNITS

Here's the inside story on the famous Hale FZZ. Originated by Hale and often imitated but never duplicated, Fire Companies everywhere find the FZZ and its companion, the FZ, tops in the emergency work for which each is specifically designed.

See For Yourself . . . Check Feature by Feature and you'll understand why the Hale FZZ and FZ are the most useful pieces of emergency equipment you can own . . . why so many other fire-fighting companies depend on them in every fire-fighting emergency. Performance of both pumps substantially exceeds N.F.P.A. capacity and pressure requirements for portable pumps in their class.

MOISTURE PROTECTED

Spark plug equipped with covering to prevent "shorting."

WRAP-AROUND FRAME

Exclusive HALE design. Protects vital engine parts and pump within its steel enclosure.

MATCHED POWER

Pump designed specifically for engine to give long engine life and low operating costs.

FOLD-AWAY HANDLES

Adjust to four positions. Rubber grips insure safe, positive carrying.

BRONZE IMPELLER and CLEARANCE RING

Easily replaceable; resistant to corrosion; insure top performance at low maintenance cost.

HAND THROTTLE

Permits operator to vary the volume and pressure to fit his requirements.

EXHAUST EJECTOR

Gives fast priming on high lifts.

RUBBER PADS

Hold pump in position; prevent "walking."

STUFFING BOX

Noted for RELIABILITY and freedom from sudden failures at critical times, such as at scene of fires.

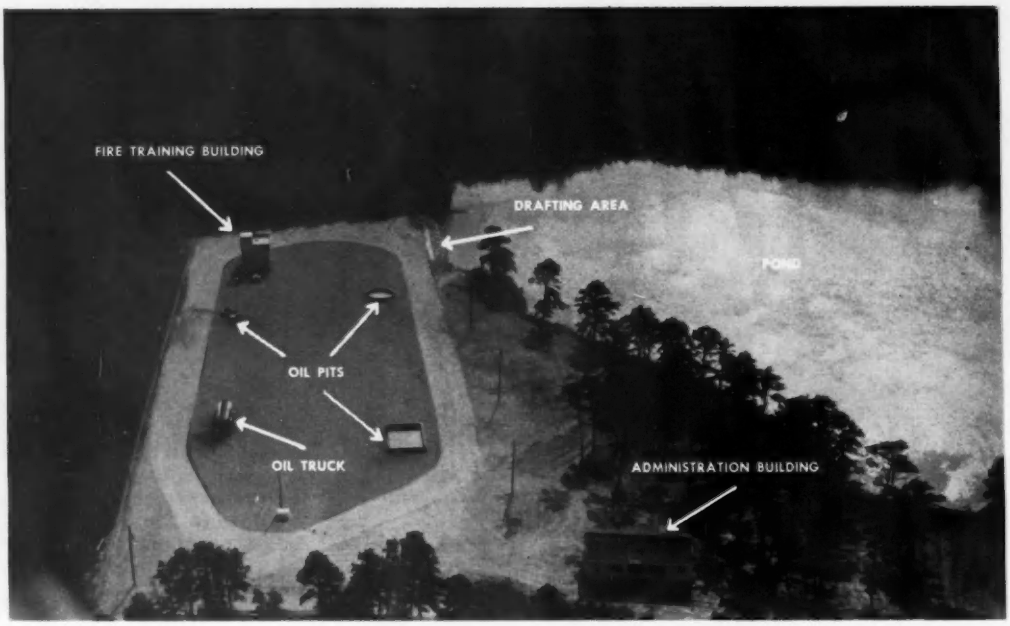
Write today for detailed information on FZZ and FZ to:

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PENNSYLVANIA

2 Great Units

The FZZ Packs a Pressure Punch! Best for pumping through a 2½" line over 350 ft. long.

The FZ Packs a Volume Punch! Best for pumping through a 2½" line not over 350 ft. long



Aerial view of Barnstable County Training Center.

Barnstable County Training Center

Fire departments on Cape Cod, Massachusetts have useful new training facilities.

NOW in use just outside of Hyannis, Cape Cod, Massachusetts, is the Barnstable County Fire Training School shown in the photo above. Built for $40,000 allotted by Barnstable County and with approximately $20,000 for additional materials and labor, the school will serve 18 fire departments in the county and possibly other fire departments in surrounding areas. Chief Leighton F. Peck of Falmouth has been placed in charge of the over-all training program by the Cape Fire Chiefs' Association. However, each fire department chief will set up a training program for his individual department.

The school is located on seven and one-half acres at the edge of Flint Rock Pond off Mary Dunn Road, Hyannis, north of the Barnstable Municipal Airport. As shown in the photo, the facilities offer a variety of training. There is a 2½-story cement block training building. Class A and Class B fires can be started in the cellar, the first and second floors and on the roof so that fire fighters can attempt fire control and rescue under varying conditions. The building has glass window panes easily replaced. A hole in the roof has a removable cover so that fire fighters can also see the practical results of roof ventilation. A metal fire escape ladder has been fastened to one side of the structure and on one side of the building a heavy timber extends outward to secure ground ladders.

The nearby Otis Air Force Base donated the 25- by 45-ft. administration and classroom building. It included heating ducts and lighting equipment and the fire fighters added a new roof, side walls and other facilities. Principal use of this building will be as the classroom for showing training films and holding discussions of the school program. In time a tower will be built on top of the classroom building from where an officer in charge of training can have an unobstructed view of the whole area and control all operations through a loud-speaker system. Elevated floodlights are on poles surrounding the field and give adequate illumination for nighttime training. In addition, the entire area is fenced to keep youngsters and unauthorized persons from entering the area.

There is a 20-ft. diameter circular pit, a 20- by 40-ft. rectangular pit and a "zig-zag" pit for conducting flammable liquid fires. Oil for the pits is supplied by a 3,000 gallon underground tank with a small pump. Buried pipelines run to the pit and to a gasoline tank truck which is also used for fire training.

Excellent water supply is available from the pond. Special attention was given to preparing an approach area for pumpers and approximately $3,000 was spent for building this approach with cement rip-rapping. For hydrant operations, water is pumped from the pond to a hydrant at the edge of the training field so that fire fighters can hook up a pumper and make hose layouts from this point. Any water that is used in the training area drains into a central sump which was built with 100 tons of crushed stone. Thus, contaminated water will drain into sump and filter deeply into the sandy, purifying soil.

Watch Those Elevators!

AS MENTIONED in NFPA No. 101 — "Building Exits Code" elevators cannot be considered as suitable for emergency exit use in place of other means of exit required by the code. The code points out that elevators have some inherent characteristics which are accentuated in modern automatic elevators where no operator is available to exercise judgment in the control of the elevator in case of fire or other emergency.

Paragraph 3801 of the 16th Edition (1959) of the code mentions some of the reasons why elevators are not recognized as required exits, such as the following:

Persons seeking to escape from a fire by means of an elevator may have to wait at the elevator door for some time, during which they may be exposed to fire or smoke, or panic may develop.

Automatic elevators respond to the pressing of buttons in such a way that it would be quite possible for an elevator in use for descent from floors above a fire to stop automatically at the floor involved in the fire and the doors to open automatically exposing occupants to fire and smoke.

Modern elevators cannot start until doors are fully closed and a large number of people seeking to crowd into an elevator in case of emergency might make it impossible to start.

Any power failure, such as the burning out of electric supply cables during a fire, may render the elevators inoperative or might result in trapping persons in elevators stopped between floors and under fire conditions there might not be time to permit rescue of trapped occupants through emergency escape hatches or doors.

A recent fire experience shows why the NFPA Committee on Safety to Life which develops the code, stressed the limitations of elevators as a means of exit. The Atlanta, Georgia, Fire Department responded to a fire which was on the sixth floor of a fire-resistive office building. During initial operations several fire fighters were sent to the seventh floor (the floor above the fire) and when they found no fire on that floor tried to return to the first floor by one of the elevators. Subsequently, they stated that the elevator automatically stopped at the sixth floor and the doors opened. Because of the intensity of the fire and because the men feared that they might be trapped they quickly left the elevator and went down the stairs. It was also reported that later during the fire all four elevators automatically went to the sixth floor.

It is reported that the reason for this unusual actuation of the automatic elevators was still being investigated. However, fire fighters in preplanning fire attack and evacuation of personnel from any building that features automatic elevators should take a fresh look at the latest edition of the Building Exits Code particularly the section mentioned above pertaining to elevators.

Changing Address?

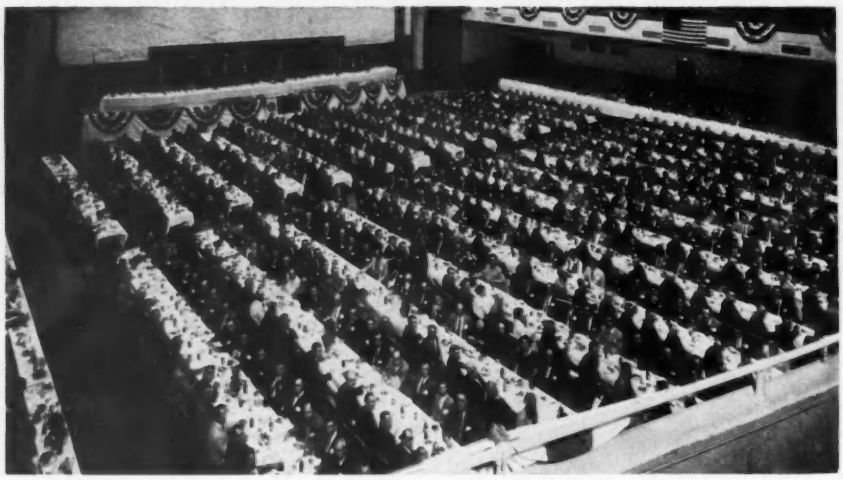
SUBSCRIBERS to FIREMEN magazine who plan to change address should notify the NFPA Executive Office promptly so they won't miss any issues of the magazine. Fire fighters who receive the magazine through fire chiefs' or fire departments' membership should also include this information when they send notification of their new addresses.

HANNAY REELS ARE BUILT FOR ACTION

Hannay reels give you instant action in fighting the countless fires where the booster hose is needed first. And when the out bell sounds, dependable Hannay chain drive gives you positive, controlled rewind even under the most adverse conditions. Only firefighters can know the demands made on every piece of their equipment, and Hannay reels are designed and built by working firefighters. Be sure you specify and insist on hose reels by Hannay.

Hose Reels by HANNAY®

CLIFFORD B. HANNAY & SON, INC., WESTERLO 11, N. Y.



Once again Memphis fire fighters fed Conference guests at a luncheon on each day. A second auditorium room was needed to seat the record crowd. (*Photos by Memphis Fire Department.*)

HIGHLIGHTS OF THE

32nd FDIC

THE 32nd Fire Department Instructors' Conference, held in Memphis, Tennessee, March 1–4, drew its largest attendance in history. On the final day 2,594 members of the fire service and guests from the United States and Canada had registered for the meeting. The morning and afternoon sessions throughout the four days were well attended. Unfortunately, inclement weather forced the cancellation of a number of spectacular outdoor demonstrations which had been planned; however, the rest of the program was well balanced with outstanding individual speakers and panel discussions.

The Conference started on Tuesday morning, March 1, under the chairmanship of Emmett T. Cox, director of training, Fire Prevention Department, Western Actuarial Bureau, Chicago. The opening invocation was given by Dr. James A. Wax, rabbi, Temple Israel in Memphis and it was followed by remarks by Acting Chief E. A. Hamilton of the Memphis Fire Department; Honorable Henry Loeb, mayor of Memphis; Honorable Claude A. Armour, vice-mayor and commissioner of fire and police; A. I. Davis, president, Memphis Chamber of Commerce; Paul J. Vescova, president, Junior Chamber of Commerce; and Richard T. Ely, president of the Memphis and Shelby County Council of Civic Clubs. In cooperation with the Western Actuarial Bureau of Chicago, Illinois, all of these organizations participate in giving financial support and coordination to this outstanding fire service annual event.

Some of the principal speakers of the week are shown on the opposite page. Other speakers included Chief John F. Sullivan of the fire department in Jefferson City, Missouri; John J. Ahern, director of security, General Motors Corporation, Detroit; John E. Barman, chief engineer, Missouri Inspection Bureau, St. Louis; Hugh V. Keepers, assistant manager, Fire Prevention and Engineering Bureau, Dallas; Chief Training Officer Jake Siken, of the Phoenix, Arizona, Fire Department; Dr. H. P. Sullivan, fire department physician and surgeon of Chicago; R. B. "Skip" Smith, senior instructor, Fire Service Extension, University of Maryland; Dr. Lester L. Williams, fire department physician and surgeon of Colorado Springs; Chief C. G. "Skipper" Lipps, of Prairie Village, Kansas; Miss Fannie Hardy, deputy commissioner of insurance, Little Rock, Arkansas; Milton Q. Bullock, chief, Staff Services, Metropolitan Safety Department, Miami, Florida; Raymond C. Davidson, state field instructor, Fire Protection Department, Oklahoma State University, Stillwater; Chief John Pavlik, fire department, West Milwaukee, Wisconsin; John R. Long, Jr., commissioner of insurance and state fire marshal of Nashville, Tennessee; Jack B. Liberator, coordinator, Emergency and Rescue Squad Training, Ohio State University, Columbus; A. J. Snow, manager of the Oregon Insurance Rating Bureau, Portland; and Robert J. Gaskill, past president of the International Municipal Signalmen's Association, Fort Wayne, Indiana.

First luncheon speaker was Chief Raul Gandara of the Fire Service of Puerto Rico, Santurce. He is shown here with Conference Chairman Emmett T. Cox and Acting Chief E. A. Hamilton of Memphis.

The last three morning sessions featured panel discussions. The panel shown below includes (left to right) William C. Freitag, chief fire protection engineer, Inspection Bureau, Minneapolis; Fire Chief V. J. Bella, Berwick, Louisiana; Chief Instructor Terence J. Butler, Fire Service Training School, Montreal, Canada; State Fire Marshal Joseph F. Divis, Lincoln, Nebraska; Fire Department Instructor W. P. Henson, Spartanburg, South Carolina; Fire Inspector E. W. McCoy, General Electric Company, Idaho Falls, Idaho; and Fire Chief Joseph F. Picard of Forest Park, Georgia.

A luncheon address on the organization and activities of the NFPA was given by Charles S. Morgan, assistant general manager, National Fire Protection Association.

Keynote address "Why Am I Here?" was given by the Rt. Rev. Monsignor William J. Gorman, Chaplain of the Chicago, Illinois, Fire Department.

Chief Henry G. Thomas, president of NFPA and consultant, National Board of Fire Underwriters, discussed the serious problem of church fires and effecting fire fighting control.

Results of the school fire tests in Los Angeles were discussed by Raymond M. Hill, fire marshal of the Los Angeles Fire Department.

William D. Buck, president of the International Association of Fire Fighters, served as chairman of the luncheon held on Tuesday noon.

The need for providing for fire department response to shopping malls was stressed by John C. Thornton, American Institute of Architects, and member of the NFPA.

Commissioner Claude A. Armour presented diamond-studded badge to Acting Chief E. A. Hamilton, with Mrs. Hamilton looking on.

A. J. Steiner, fire protection engineer of Underwriters' Laboratories, Inc., Chicago, demonstrated the UL method of fire testing on treated and untreated wood.

How about an MSA demonstration for *your* department?

You'll see a complete line of self-contained breathing apparatus for protection in oxygen deficient or highly toxic atmospheres. There are air or oxygen cylinder type demand masks, and the CHEMOX®, a chemical oxygen generating unit. Protection times range from 45 minutes to 8 minutes.

For self-contained breathing protection, MSA has the Air and O_2 Mask (see below), Air and O_2 Cub and the oxygen generating CHEMOX®.

In our Gas Mask line — the M-S-A® ALL-SERVICE® Gas Mask offers protection against smoke, poisonous industrial gases, fumes, and carbon monoxide. WINDOW-CATOR® Canister provides visual warning when to change canisters.

Arrange now for information or a demonstration. Contact your nearby MSA sales outlet. Or write, Mine Safety Appliances Co., Pittsburgh 8, Pa. In Canada: Mine Safety Appliances Co. of Canada, Ltd., Toronto 4, Ontario.

MSA SAFETY EQUIPMENT HEADQUARTERS

MSA backs up its label with selection, quality, research, experience

How to Get In and Out of Canada

A SPECIAL committee, working in Montreal preparing for the forthcoming 64th NFPA Annual Meeting, has written the following useful summary. All fire service personnel and NFPA members who are going to the meeting should be familiar with these details prior to entering Canada.

Canadian Immigration — Entry into Canada is a relatively simple process. Citizens or permanent residents of the United States do not require passports but it is advisable that native born United States citizens carry some form of identification such as personal letters, voter's certificate, tax bill, car license, driver's license or similar papers. Possession of a birth or baptismal certificate is helpful but not essential. Naturalized citizens would be well advised to carry documentary evidence of citizenship such as a naturalization certificate for presentation if requested. Alien permanent residents in the United States are advised to have their Alien Registration Receipt Card (U.S. Form 1-151).

It is the responsibility of visitors from the United States to satisfy U.S. Immigration Authorities of their right to re-enter the United States, but if the regulations admitting them to Canada have been complied with, return to the U.S. is a normal routine.

Canadian Customs — Tourists' Baggage — All necessary wearing apparel and personal effects in use by the visitor are admitted into Canada without payment of duty. Up to 50 cigars, 200 cigarettes, two pounds of tobacco, and 40 ounces of alcoholic beverages, per adult person, may be included. This does not apply to merchandise or articles intended for other persons or for sale. All such goods must be declared.

Gifts — Gifts, excluding tobacco, alcoholic beverages and advertising matter, brought into Canada by non-residents for relatives or friends, may be allowed free entry if the total value for any one recipient from any one donor does not exceed $10.00.

Vehicles — Visitors may enter Canada by automobile for as long as six months without payment of any duty or fee. The automobile registration card must be carried. At the port of entry the custom office will issue a traveller's vehicle permit which will be carried on the vehicle whilst in Canada and given up to the Canadian Customs when re-entering the United States. *"Drivers' or Operators' licenses issued anywhere in the U.S. are valid while visiting Canada."*

The driver of an automobile who is not the owner of the vehicle must have written permission from the owner to bring the vehicle into Canada, as well as the car registration card.

Cameras, Radios — Still and moving picture cameras, projectors, portable radios and musical instruments may be brought into Canada free of duty or deposit. It is advisable, however, that such effects be registered with Canadian Customs at the port of entry.

United States Customs — *United States residents returning from Canada* may take back, once every 31 days, merchandise for personal or household use to the value of $200.00 duty and tax free, provided they have remained in Canada at least 48 hours.

An additional exemption of $300.00, making a total of $500.00, duty and tax free, is allowed once every six months if the resident has been in Canada for at least 12 days.

Under either of the foregoing exemptions, *but not both*, up to 100 cigars and not more than 1 wine gallon of alcoholic beverages may be imported. If, however, State laws of residence prohibit importation of alcoholic beverages, the United States Customs will not clear.

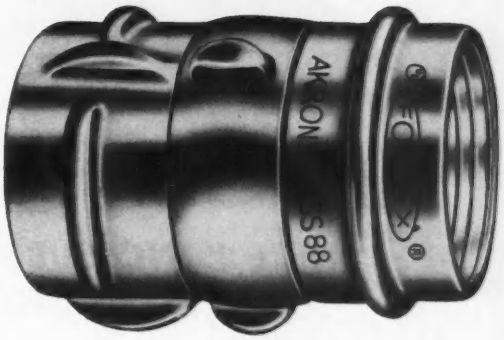
It is suggested that in order to facilitate customs clearance, United States residents have the sales slips and invoices covering articles acquired during their stay in Canada readily available.

AKRON'S TOUGHER
FORGED COUPLINGS

Tapered hose bowl grips like a vise!

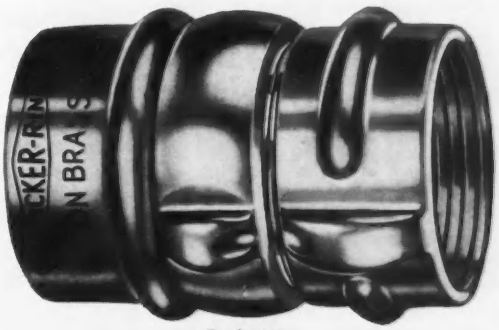
The hose will blow before the coupling will go!

FORGEX®



Style 88

ROCKER-RING®



Style 92

Drop-forged under the tremendous force of hydraulic presses, Akron Rocker-Ring and Forgex couplings give you greater density, strength and toughness . . . the trouble-free service you're looking for.

Two models for you: the lightweight, three-lug Forgex, and the heavy-duty two-lug Rocker-Ring ...both guaranteed to give you complete satisfaction.

- Brass—reinforced with manganese—drop-forged
- Rocker-Ring for added protection to threads and swivel—for added strength in the hose bowls
- Tapered hose bowl holds hose in vise-like grip—no slipping at any pressure
- High pressure—the hose will blow before the coupling will go
- Threads—any 2½" and 1½" threads
- Hose—fit all fire hose
- Higbee thread and indicators
- Underwriter's listed

STYLE 88 — FORGEX® ROCKER-RING 3-Lug Coupling. Forgex comes in the smaller hose bowl sizes, perfectly tailored for the new lightweight hoses. A lightweight, tough, three-lug, drop-forged coupling for use on all 1½" or 2½" fire hose—dacron or cotton—any thread. Satin finish. Brass with manganese.

STYLE 92 — ROCKER-RING® 2-Lug Coupling. The heavy-duty drop-forged coupling for departments that want the best where service is the toughest. Satin finish. Brass with manganese.

Style	Size	Rockerlugs	Length	Weight Lbs.
88	1½"	3	4½"	2⅜
88	2½"	3	5⅜"	4½
92	1½"	2	4½"	2¾
92	2½"	2	5¾"	6⅛

See New Akron Brass Catalog 60—Page 62

AKRON BRASS
FIRE FIGHTING EQUIPMENT

AKRON BRASS MFG. COMPANY, INC.
WOOSTER, OHIO
AKRON MFG. (CANADA), LTD.
AYLMER, ONTARIO

SPECIFY AKRON BRASS—FOR BETTER FIRE FIGHTING EQUIPMENT

CAIRNS
FIRE HELMETS

LEATHER, ALUMINUM AND PLASTIC

REGULATION AND DROP BRIM MODELS

THE FIREMAN'S STANDARD OF SAFETY

SINCE 1836

"THERE IS NO SUBSTITUTE FOR EXPERIENCE"

Write for Catalog 360

CAIRNS & BRO., INC. — Allwood, Clifton, N. J.

DID YOU ANSWER THIS GLOBE AD 59 years ago?

If you did, you would have quickly realized that the Globe Suit was considered the best then. It's twice as good today! It's warmer, lighter, more comfortable; there's a model designed for action in every weather extreme and fire fighting condition; we've "torture-tested" it with hoses, ice, and fire — and it always comes up smiling and ready to go. Worldwide, GLOBE is still the standard of excellence today, just as it was 59 years ago!

MAIL THIS COUPON NOW!

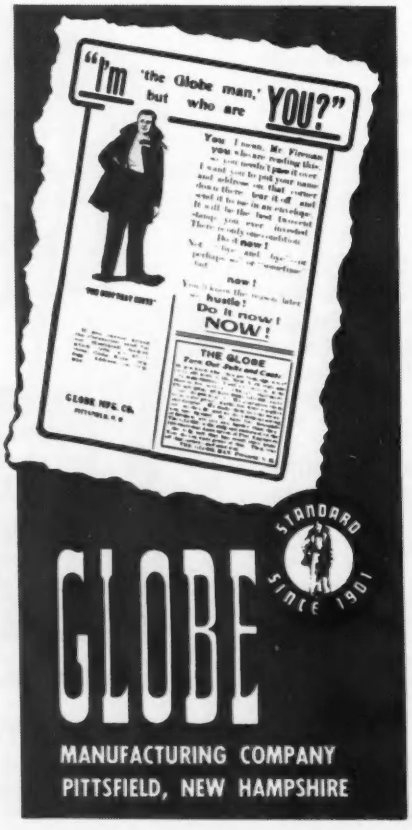
Gentlemen:

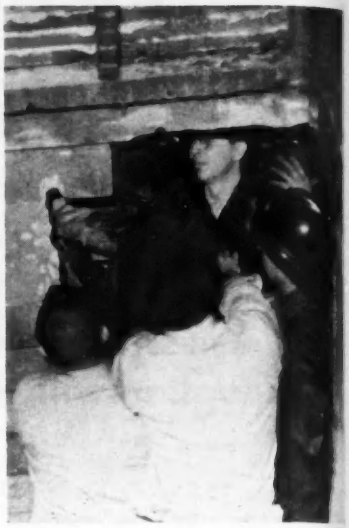
Please rush fully illustrated, detailed, colored catalog on GLOBE FIREMEN'S SUITS & ACCESSORIES, including new aluminized suits.

NAME .....

ADDRESS .....

.....





Another Boy in Trouble

SMALL boys can get stuck in strange places quicker than anybody. In Toledo, Ohio, recently, two boys were playing on the roof of a one-story manufacturing plant. Somehow one of the boys, a four-year old, slipped into the chimney feet first and dropped 35 feet. A few feet from the bottom, he stuck. His companion had the good sense to notify the fire department.

Toledo's No. 7 rescue squad and No. 7 hook and ladder responded. They located the boy's position in the chimney by having one man talk to him from the top while another man tapped the chimney at the bottom; then the boy could call out when the tapping sounded the loudest. It took the rescue squad about 20 minutes to locate the prisoner and release him, knocking a neat hole in the otherwise sound chimney. Some scrubbing and patching of minor cuts and bruises made the youngster as good as new and ready for another venture. When asked about his predicament, he said, "I wasn't scared hardly at all anymore when I knew the firemen were there."

Safe Handling of Chemicals

THE first in a series of pamphlets to be known as Safety Guides has been announced by the Manufacturing Chemists' Association, Inc.

"Health Factors in Safe Handling of Chemicals," is the title of the

new publication developed as a part of the activity of the Association's General Safety Committee. The four-page publication is designed to help the non-chemist in the chemical plant become familiar with toxicological terminology, to understand ways by which noxious substances enter the body and exert their harmful effects, and to know the basic principles of first-aid treatment.

The new series of guides will cover aspects of safety in chemical manufacturing which are not dealt with in the widely used chemical safety data sheets, also published by the Association. The second guide in the series, which will be published in the near future, will deal with "good housekeeping" in chemical manufacturing. Others are planned to cover such matters as "electrical switch lockouts," "entering tanks," and other safety matters of broad application. Safety organization, precautions against environmental hazards, fire and safety training also are possible topics.

Copies of Safety Guide SG–1 are available at 15 cents each from the Manufacturing Chemists' Association, Inc., 1825 Connecticut Avenue, N.W., Washington 9, D. C.

Arson Investigators' Seminar

THE 16th International Arson Investigators' Seminar will be held at Purdue University from April 25 to 29. This five-day intensive training program will be conducted in cooperation with the International Association of Arson Investigators and other agencies interested in the recognition, investigation, prosecution and prevention of arson.

The seminar will present the nation's outstanding arson authorities, lecturers and moderators. The program will include essential basic information for the arson investigator which will be expanded into advanced techniques of investigation, criminalistics and specialized training that will lead to more effective detection, apprehension, prosecution and conviction of the arsonist.

For additional information concerning the seminar please address: Professor Shelby Gallien, Seminar Director, Public Safety Institute, Purdue University, West Lafayette, Indiana.

From one chief to another...

CHIEF JESSE G. HUNTER, CEDAR RAPIDS, IOWA, SAYS:

"Our Cornelius Compressor satisfies all our needs for compressed air."

MODEL 3800102—3000 PSI, 4 CFM. Weight approx. 120 lbs. Unconditionally guaranteed against defects in materials and workmanship for one year.

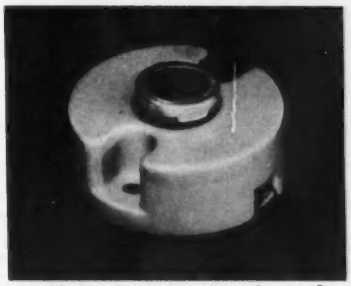
Chief Hunter reports: "Our Cornelius compressor satisfies all our needs for compressed air for our air breathing masks, both for actual fire fighting duty and for all training purposes. We also take care of our local SCUBA divers' compressed air needs. The source of all our compressed air needs is always available at any time of the day or night with the use of our Cornelius compressor."

Protect your men and inspire their confidence with an abundance of pure, fresh air supplied by a Cornelius compressor. Write today for free literature.

THE Cornelius COMPANY

550 39th Ave. N.E. • Minneapolis 21, Minn.

"LIFE SAVER" FIRE DETECTOR



Underwriters' Laboratories, Inc., Listed for 135° and 200°

Many schools, nursing homes and residences are being equipped with Automatic Fire Alarm Systems so that an early warning will be given in case fire should occur.

False alarms should be avoided as much as possible. A fire detector operating on a fixed temperature should never give a false alarm.

The Life Saver Fire Detector will operate an alarm at 135 degrees. It is self-restoring and may be heat tested at any time. It is sold at a very reasonable price and should last indefinitely. It can be used with any Underwriters' approved panel.

FIRE ALARM THERMOSTAT CORP.

53 WEST 23RD STREET NEW YORK 10, N. Y.

UNDERWRITERS' APPROVED FIRE DETECTORS • PANELS • BELLS • HORNS

BE CONFIDENT
your men will get emergency calls — whether from base station or mobile transmitters

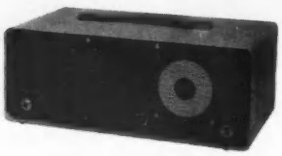
COMPARE THESE
Reliability Features:

- Crystal controlled — no drifting
- Transformer Power Supply — longer operational life and no danger of shock
- 1 micro-volt sensitivity — hear the weak ones
- 20 KC Bandwidth — less interference from stations on adjacent channels
- 4 watts audio power — plenty for extra speakers
- Electronic squelch
- Super-heterodyne receiver circuit

Designed to accommodate accessories such as selective calling and extra speakers. Attractively styled compact case.

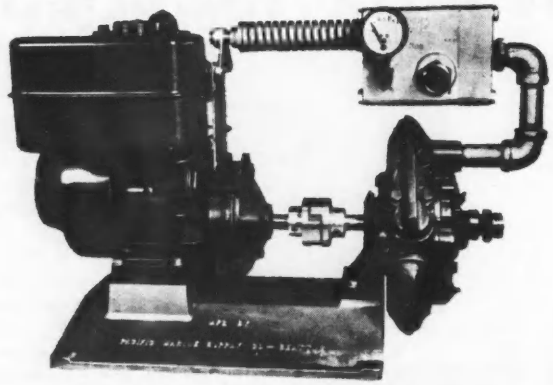
Although you would expect to pay more for all of these quality features the modest price is only
35-50 MC $102.50*
148-172 MC $112.50*
*includes crystal

DEPENDABLE
FM Monitor Receivers
are on the alert round the clock for vital calls in the 30-50 MC or 148-172 MC FM BANDS



ACTON LABORATORIES, INC.
Subsidiary of
TECHNOLOGY INSTRUMENT CORP.
533 Main St., Acton, Mass.

A NEW Pacific Pumper



— for pumping abrasives

New in Pacific's long established, complete line of standard pumpers, compact Model BW weighs only 70 lbs. and is designed for ground application of abrasive fire-retardent slurrys, such as used by the U. S. Forest Service. Equipped with a pressure controller unloader valve enabling operator to control pressure to any desired setting. This allows engine to operate freely, assuring long pump and engine life.

Rated Performance:

Pressure	**50**	**100**	**150**	**200**	**250**	**300**	**Normal Operation**
G.P.M.	**10**	**9**	**8¾**	**8½**	**8**	**7**	**8 GPM @ 250 PSI**

Write for catalog on our complete line of light weight portable pumpers and related forest fire fighting equipment.

PACIFIC MARINE SUPPLY CO.
1223 Western Ave., Dept. F, Seattle 1, Wash.

"Split Channel" Frequency Checks

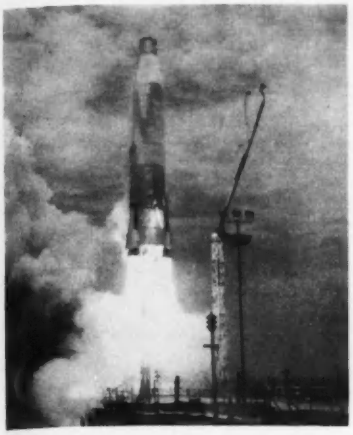
LAMPKIN Laboratories, Inc., Bradenton, Florida, is now marketing a low-cost system for measuring the frequencies of mobile-radio transmitters, to the F.C.C. split channel tolerance of 0.0005 per cent (above 50 mc). The new system, called the PPM Package consists of the Lampkin micrometer frequency meter and a modified Measurements Corporation Model 111 crystal calibrator. When used in conjunction with a WWV receiver, transmitter-frequency checks can be made to an accuracy of better than one (1) part per million (0.0001 per cent).

The crystal calibrator is modified by Lampkin to include a 3½-inch diameter dial, which tunes the crystal and is calibrated from plus 25 PPM to minus 25 parts per million. The calibrator produces harmonics spaced 250 kc apart, up to 500 mc and beyond; the output frequency of the micrometer frequency meter mixes with the 250-kc harmonics, and creates a new side frequency which can be located on any transmitter channel.

Operation consists simply of setting the PPM meter to zero on WWV, adding an easily-computed frequency from the micrometer frequency meter, then reading transmitter-frequency deviation directly in parts per million from the dial.

Cost of the package is comparatively low, and either unit may be purchased separately.

"Nothing has been accepted more and practiced less than fire prevention."— Chief Henry G. Thomas, president, NFPA.



Chiefs Watch Missile Tests

RECENTLY the fire chiefs and police chiefs of San Diego, California, visited the nearby Convair plant to watch tests of an Atlas ICBM engine. Battalion Chief Robert Ely of San Diego subsequently sent some interesting data to FIREMEN magazine. He mentioned, for example, that in "captive firing" the fiery rocket exhaust strikes a water-drenched steel deflector bucket underneath the tower. To keep the steel from melting, more than 30,000 gallons of water must be poured over the deflector during a 60-second run. Chief Ely states that there is "hardly any runoff." Readers will be interested in the heat energy required to change this amount of water to steam. As an example of the amount of heat energy needed, let's consider that initially the water temperature is 62 degrees F. To convert one gallon of water to steam will require 9,330 Btu's. To convert the 30,000 gallons of water to steam will require 79,900,000 Btu's in one minute. This will produce a volume of steam of approximately 6,690,000 cu. ft.

Fatal LP-Gas Tank Truck Fire

THIS article was preprinted in pamphlet form in October and has since been reprinted. It has received widespread distribution and importance. Prepared by NFPA Gases Field Engineer Clark F. Jones, it reports the fatal LP-Gas tank truck fire of June 2, 1959 near Pottsville, Pennsylvania. The 12-page reprint is available at 25 cents per copy with quantity discounts.

When you buy a siren or light, you are buying protection. Be sure you get it.

Making a light revolve is as simple as waving at Mabel. Making it revolve dependably and give *real visual impact* costs money. Dependable impact just isn't available at a low price.

Don't let trick beams, colors, or motions confuse you. The warning beam must hit the eye of the unwary motorist or pedestrian, or you haven't *any* protection.

FEDERAL lights (and sirens) do *dependably* what you purchase them to do. Pay less—you get less, or nothing! Ask for catalog #300.

***Get what you pay for—Protection! Specify* FEDERAL!**

FEDERAL SIGNAL SIGN and Corporation

13617 S. Western Ave., Blue Island, Ill.

The proven method of complete controlled ventilating and smoke elimination is Super Vac. Fire Department use throughout the U.S.A. and many foreign countries is conclusive proof that Super Vac smoke ejectors do the job — do it right — do it in time. Super Vac smoke ejectors rid area of smoke and fumes by powerful vacuum action as well as reduce dangers of combustion and asphyxiation by forcing a tremendous blast of fresh air into the smoke congested area. Compare these advantages:

- Unique patented perfect spiral air screw — does not *chop* air like ordinary fans.
- No dead spots — creates suction over *entire* face of housing.
- Prolonged motor life — blade forces air *over* motor surface to reduce motor heat.
- Now four sizes — 12" - 16" - 20" - 24".
- AC or DC, regular or explosion-proof motors.
- Running board mounts and hangar unit available.
- Choice of red, white, or metallic green baked enamel finish.

Read the industry standard — our Operational Booklet No. 58, written to firemen by firemen. Contact your fire equipment dealer or write us.

SUPER VAC

SUPER VACUUM MANUFACTURING CO., INC.
319½ E. 17TH AVE. DENVER 3, COLO. • TA 5-4577

Omaha Gets Another Rescue Unit

THE outstanding rescue work of the Omaha, Nebraska, Fire Department, commanded by Chief Eugene W. Fields, through the years has won international attention. (See September, 1953, FIREMEN.) In addition, the department has won enthusiastic support from the city's residents including social and business organizations.

Recently, to express appreciation for the work of the rescue squad, the Knights of Ak-Sar-Ben donated a brand new rescue squad (shown above) for use in South Omaha. This is the seventh rescue vehicle presented to Chief Fields by the organization, representing a total contribution of nearly $100,000. The new vehicle is completely equipped with the latest in rescue equipment and is capable of carrying seven persons on stretchers. It will permit two older rescue units to be moved to other quarters; one of these, a smaller car, will be stripped of rescue equipment and converted into a floodlight wagon. The rescue car during its long period of service traveled over 100,000 miles on rescue missions.

Keys to the new rescue unit were presented to Omaha's mayor, John Rosenblatt, by Tommy Nielsen, a boy whose life was saved twice by the South Omaha rescue squad.

Pumper for Walpole Fire District

Walpole, New Hampshire, recently put into service this new four wheel drive 750 gpm pumper. Built by the Farrar Company of Woodsville, Massachusetts, it has a 500 gallon booster tank, two electric rewind booster reels with 200 feet of hose, a pre-connected 1½-in. line, a hose bed for 1,500 feet of 2½-in. hose and 500 feet of 1½-in. hose, a 28-ft. extension ladder and a 14-ft. roof ladder. Delivery price including radio and hose was $19,500.

More for your Money...in MORYSVILLE

F-131 RESCUE UNIT

- 5,000 Watt Generator
- 110-Volt Throughout
- Six 110-Volt Outlets
- Eight Circuit Unit (Each Unit Has Own Switch)
- Four Spotlights • Six 12-Volt Flashers
- Full-Length Seats • Heavy Duty Const.
- Chrome Plated Railings
- Diamond Plate Decks
- Available in 84 to 121 CA (Shown 102 CA)
- Double Panel Doors with Full Length Rod Type Hinges with Brass Bearings

MORYSVILLE Body Works INC.

813 SOUTH READING AVE., BOYERTOWN, PENNA.
DISTRIBUTORS IN PRINCIPAL CITIES

Also a complete line of compact and versatile Fire, Fire-Crash, Rescue and Emergency Units and Special Built Fire Bodies. Finest materials and workmanship, extra-rugged construction and original modern design. Compartments arranged for handy stowage of fire fighting, first aid and life saving equipment, helmets, rain gear, tools, tanks, portable pumps and generators, etc.

Write for FREE Literature

Aircraft Rescue and Fire Fighting Chart

SHOWN above is a portion of a chart published recently by American Airlines, 100 Park Avenue, New York, New York. This illustration does not include detail sketches of the external door handles and emergency exit hatches push handle. A minor change has been made in one of the details and revision of the sketch could not be completed in time for publication in this issue of FIREMEN magazine.

However, American Airlines has prepared a number of these charts, including the detail sketches. A limited supply of *single copies* is available from that company on 8½- by 11-in. sheets for members of airport fire brigades, municipal fire departments and others interested. The charts are useful as supplements to instruction on aircraft crash fire fighting.

This illustration, in general, represents the design of jet powered, passenger carrying aircraft, which, of course, are becoming more numerous. Fire fighters should give particular attention to the position of fuel compartments, the oxygen and extinguishing systems and the emergency exits for passengers. The NFPA Publications Department has a number of similar sketches of other aircraft, illustrating these important details. The charts are available for fifteen cents each. In addition, there are the various standards on aircraft crash rescue and fire fighting, also available from the Publications Department. Standard 402 (35 cents), Standard 403 ($1.00) and Standard 406 (35 cents), each have recommendations that are particularly important to fire fighters.

Important Fire Service Meetings

Arizona:

APRIL 27–30: 34th Annual Convention of the Arizona State Firemen's Association, Hermosillo, Mexico. Contact Earl Hunt, secretary-treasurer, P.O. Box 442, Safford.

California:

APRIL 21: Redwood Empire Firemen's Association, quarterly meeting, Napa. Contact W. H. Lane, secretary, 74 Vandola Drive, San Rafael.

MAY 20: Marin County Association of Fire Departments, regular meeting, Corte Madera. Contact W. H. Lane, secretary, at above address.

Delaware:

APRIL 26: Sussex County Volunteer Firemen's Association, monthly meeting. Contact W. J. Quillen, secretary, Millville.

MAY 7–8, 14–15: Delaware Volunteer Firemen's Association, 12th Annual Short Course, Camden. Contact Granville T. White, chairman, Laurel.

Florida:

MAY 5–7: Florida State Firemen's Association, 33rd Annual Convention, St. Petersburg Beach. Contact V. J. Higgins, chairman, 420 76th Avenue, St. Petersburg Beach.

Illinois:

MAY 15: Southern Wisconsin and Northern Illinois Firemen's Association, 45th Annual Meeting, Sauk City-Prairie du Sac, Wisconsin. Contact Herman Pfund, secretary, New Glarus, Wisconsin.

Iowa:

APRIL 19–22: Iowa Fire Department Instructors' Conference, Ames. Contact Keith Royer, supervisor, Firemanship Training, Iowa State University, Ames.

Kansas:

APRIL 27–30: Second Regional Fire School, Kansas State Firemen's Association, Besse Hotel, Pittsburgh. Contact E. E. Mehl, secretary, 544 South Hillside Street, Wichita.

Minnesota:

APRIL 27: Northern Region Firemen's Association, Spring meeting, six p. m., Halstead. Contact Roy Langevin, secretary, Thief River Falls.

Missouri:

MAY 14–15: Missouri Association of Fire Chiefs, annual convention, Missouri Hotel, Jefferson City. Contact Chief John Sullivan, Jefferson City.

MAY 19: Franklin-Gasconade County Firefighters' Association, Inc., regular meeting, Owensville. Contact E. J. Schmidt, president, 208 Mardet Street, Washington.

Nebraska:

APRIL 21: Thayer County Volunteer Firemen's Association, quarterly meeting, eight p.m., Alexandria. Contact B. J. Cabrera, secretary, Box 446, Deshler.

New Jersey:

APRIL 21: Gloucester County Firemen's Association, monthly meeting, Good Will at Woodbury. Contact W. H. Mattson, secretary, 29 Home Avenue, Gibbstown.

New York:

APRIL 19: Dutchess County Volunteer Firemen's Association, quarterly meeting, New Hamburg. Contact Albert Belle Isle, secretary, Box 725, Glenham.

APRIL 19: Ulster County Volunteer Firemen's Association, monthly meeting, Scorsby Fire House, Ellenville. Contact F. C. Harder, secretary, 34 Jarrold Street, Kingston.

APRIL 20: Columbia County Volunteer Firemen's Association, quarterly meeting, eight p.m., Stockport. Contact Edward L. Rowe, secretary, Box 118, Mellenville.

APRIL 21: Hudson-Mohawk Volunteer Firemen's Association, monthly meeting, De Freestville Fire Department (Old Timers' Night). Contact W. J. Hopmeier, secretary, RD 5, Box 202, Schenectady.

APRIL 24: Monroe County Volunteer Firemen's Association, Inc., annual meeting, Barnard Exempts' Club. Contact Nathan C. Morrell, secretary, 241 Buckman Road, Rochester.

APRIL 26: Suffolk County Volunteer Firemen's Association, quarterly meeting, Suffolk County Fire Training Center, Yaphank. Contact George Hechler, president, 9 Bayview Avenue, East Islip.

MAY 1: Erie County Volunteer Firemen's Association, regular meeting, Main-Transit Community Volunteer Fire Company, Williamsville. Contact C. H. Herbold, secretary, 481 Harris Hill Road, Bowmansville.

MAY 12: Mid-Hudson-Harlem Valley Fire Chiefs' Association, Inc., regular meeting, Dover Plains. Contact Dick Kennedy, secretary, Box 18, Glenham.

MAY 13: Rockland County Volunteer Firemen's Association, regular meeting, Hillburn. Contact M. R. Blauvelt, secretary, 140 Fifth Avenue, Nyack.

MAY 17: Ulster County Volunteer Firemen's Association, regular meeting, New Paltz. Contact F. C. Harder, secretary, at above address.

MAY 23: Putnam County Volunteer Firemen's Association, regular meeting, Continental Village Fire House. Contact Morris De Witt, secretary, P.O. Box 602, Mahopac.

MAY 31: Orange County Volunteer Firemen's Association, regular meeting, Mechanicstown. Contact Kenneth Fowler, secretary, Harriman.

North Carolina:

APRIL 12: Eastern Carolina Firemen's Association, quarterly meeting, Kinston. Contact Mark C. Lasitter, Jr., secretary, Snow Hill.

Ohio:

APRIL 27: Central Western Firemen's Association, bi-monthly meeting, New Lebanon Fire Department, New Lebanon.

MAY 3: Logan County Firemen's Association, regular meeting, Degraff. Contact J. D. Schmelser, secretary, Rushsylvania.

MAY 4: Greene County Firefighters' Association, regular meeting, South Solon. Contact W. H. Shoemaker, secretary, 523 Glover Drive, Xenia.

LOWEST COST REVOLVING WARNING LIGHT

The ideal warning light, a sure traffic opener for Volunteer Firemen, Civil Defense, and emergency use. 90 sharp impulses per minute—6 or 12 volt. Red, Blue or Amber dome. Fully guaranteed against manufacturer's defects.

Contact your Dealer or write to

NORTH AMERICAN SIGNAL COMPANY

1620 South Canal St.,Chicago 16, Ill.

Over 6000 Departments Use

CIRCUL-AIR

The *Original* Electric

FIRE HOSE DRYER

- Eliminates Ugly Hose Towers
- Dries Hose in a Few Hours
- NO Radiant Heat — Can't Injure Hose
- Dries Fire Clothing, Too
- Keeps ALL Hose Ready for Service
- Reduces Station Construction Cost

LABORATORIES APPROVED

The CIRCUL-AIR Corporation, 575 East Milwaukee, Detroit 2, Michigan

MAY 5: Tri-County Volunteer Firemen's Association, monthly meeting, Smith Township. Contact C. W. Luyster, secretary, Piedmont.

Oregon:

APRIL 29: Polk-Yamhill Firemen's Association, monthly meeting, Dayton. Contact Glenn Wick, secretary, 209 Hayter Street, Dallas.

MAY 27: Polk-Yamhill Firemen's Association, monthly meeting, Willamina. Contact Glenn Wick, secretary, at above address.

Pennsylvania:

APRIL 16: Western Pennsylvania Firemen's Association, monthly meeting, Aliquippa. Contact Edward Clawson, secretary, 785 Fourth Avenue, New Kensington.

APRIL 19: Perry County Firemen's Association, quarterly meeting, Duncannon. Contact F. L. Frey, secretary, New Bloomfield.

APRIL 19: Fire Chiefs' Association of Allegheny County, Inc., 8:30 P.M., Green Valley Volunteer Fire Hall, North Versailles Township. Contact A. T. Ward, secretary, 433 Glencoe Drive, Dravosburg.

APRIL 20: Beaver County Firemen's Relief Association, monthly meeting, Fire Station, Big Knob. Contact W. E. Miller, secretary, 339 Pennsylvania Avenue, Rochester.

APRIL 25: Lehigh County Firemen's Association, monthly meeting, Goodwill Fire Company No. 2, Germansville. Contact Arthur Mohr, secretary, Vera Cruz.

MAY 18: Beaver County Firemen's Relief Association, monthly meeting, Brighton Township. Contact W. E. Miller, secretary, at above address.

MAY 16–20: Annual Civil Defense Fire Training School of Fire Chiefs' Association of Allegheny County, Inc., 7 to 10 P.M., Hemlock Drive. Contact Ross E. Blodgett, director, John Kane Hospital, Pittsburgh.

MAY 20: York County Firemen's Association, quarterly meeting, 7:30 P.M., Goodwill Fire Company, Grangeville. Contact L. E. Hankle, secretary, 234 West Chestnut Street, Hanover.

MAY 23: Lehigh County Volunteer Firemen's Association, monthly meeting, 8:30 P.M., Goodwill Fire Company No. 1, Trexlertown. Contact Arthur Mohr, secretary, Vera Cruz.

Rhode Island:

APRIL 27: Pawtuxet Valley Firemen's League, monthly meeting, Meshanticut Park Fire Company. Contact E. F. Fiske, secretary, 34 Pleasant Street, West Warwick.

MAY 10: Woonasquatuckett Valley Firemen's League, monthly meeting, Fire Station, North Scituate. Contact A. F. Rail, secretary, Chopmist Hill Road, Scituate.

MAY 25: Pawtuxet Valley Firemen's League, regular meeting, Tiogue Volunteer Fire Company. Contact E. F. Fiske, secretary, at above address.

Washington:

APRIL 17: Central Washington Firemen's Association, quarterly meeting, Yakima. Contact Wayne Schoonover, secretary, 131 South Third Street, Yakima.

Wisconsin:

APRIL 21: Eastern Wisconsin Firemen's Association, regular meeting, Sheboygan Falls. Contact Ardell Braun, secretary, Route 2, Sheboygan.

APRIL 28 AND 29: 1960 Wisconsin Fire Inspectors' Institute, Wausau. Contact Chief W. G. Petzold, Wausau.

Completely New...

INDIAN

FIBERGLASS

Fire Pump No. 90

INDIAN FIRE PUMPS are now offered with fiberglass tanks — in addition to galvanized and brass tank models — the INDIAN FIBERGLASS NO. 90 FIRE PUMP. Capacity is 5 gallons; much lighter in weight. Will not rust or corrode. Very strong and tough and tested to take rugged treatment.

INDIAN FIRE PUMPS have been the choice of fire departments, foresters, lumbermen, industry and many others for over 30 years. Many thousands are in use all over the world.

SEND FOR FULL DETAILS!

D. B. SMITH & CO. *"for Over 70 Years the Leaders"*
408 MAIN ST., UTICA 2, N.Y.

PACIFIC COAST BRANCHES

Hercules Equipment & Rubber Co., Inc., San Francisco 7, Calif. and San Jose
Halprin Supply Co., Los Angeles 15, Calif.
Fred E. Barnett Co., Portland, Ore.
Fred E. Barnett Co., Klamath Falls, Ore.
Mill & Mine Supply, Inc., Seattle, Wash.
L. M. Curtis & Sons, Salt Lake City, Utah

CANADIAN AGENTS

Fleck Bros. Limited, Vancouver, B.C.
C. E. Hickey & Sons, Ltd., Hamilton

Firemen's Training in the Months Ahead

Alabama: The 24th Annual State Fire College will be held April 11–15. For details contact W. L. Rickard, assistant state supervisor, Trade and Industrial Education, P.O. Box 2847, University.

British Columbia: The British Columbia Fire Chiefs' Annual Fire College will be held at Campbell River. For details write to W. A. Oswald, secretary, 7850 Osler Avenue, Vancouver.

California: A fire training officers' workshop will be held in Fresno on May 16–20. The 7th Annual Fire and Arson Investigation Seminar is scheduled for June 13–17 at the University of California in Berkeley. Write to Thomas S. Ward, supervisor of fire training, State Department of Education, Sacramento.

Colorado: The Colorado State Firemen's Association Convention-Tournament and Fire School is planned for June 15–18 in Colorado Springs. For information write to Arthur J. Becker, secretary, 2224 South Stuart Street, Denver.

Connecticut: The Annual Fire Marshals' Conference will be held April 19–21 at the University of Connecticut. The Connecticut State Fire College is scheduled for June 6–10 at the New Haven Fire Department training ground. Contact Roy W. Adams, director, Vocational Training Field Service, Connecticut State Department of Education, 490 Capitol Avenue, Hartford.

Florida: Special training classes in heating and air conditioning will be held May 16–20; and in fire pump maintenance, June 6–10. Write to Superintendent W. H. Barnett, Florida State Fire College, P.O. Box 785, Ocala.

Illinois: The 36th Annual Illinois Fire College will be held June 13–16. For details write to R. K. Newton, supervisor, Firemanship Training, 116 D Illini Hall, Champaign.

Indiana: The 16th International Arson Investigators' Seminar is scheduled for April 25–29, at Purdue University. A course in company officer supervision is planned for April 20–21; a basic fire school for May 16–20; and a rescue school for May 24–25. Contact Prof. Shelby Gallien, Public Safety Institute, Purdue University, West Lafayette.

Iowa: April 19–22 are the dates of the Iowa Fire Department Instructors' Conference in Ames where the 36th Annual Iowa State Fire College will also be held June 14-17. For information write to Keith Royer, supervisor, Firemanship Training, Iowa State University, 110 Marston Hall, Ames.

Kansas: A class in teacher training for fire department officers is scheduled for April 4–15 in Topeka. Contact Clyde A. Babb, director, Kansas Fire School, 111 Fraser, Lawrence.

Kentucky: The Annual Firemen's Training School at the University of Kentucky will be held June 6–8. Write to John L. Thompson, chairman, Fire School Committee, 940 Starks Building, Louisville.

Louisiana: The Louisiana State Fire College will be held April 25–28 at Central Fire Station in Baton Rouge. Contact Frank E. Domma, superintendent, Box 96, Baton Rouge.

Michigan: A state instructors' conference is scheduled for April 13–15. A state fire chiefs' training conference is scheduled for May 10–11 and the fire school will be held June 14–17. For details write to Francis Hartman, supervisor, Firemanship Training, Fire Training Center, University of Michigan, Ann Arbor.

Minnesota: The State Fire School will be held on the University of Minnesota Farm Campus in St. Paul, April 25–28. Write to Arthur Spottswood, coordinator and program chairman, 4254 Xerxes Avenue, North, Minneapolis.

Missouri: The Sixth Annual Convention of the Fire Fighters' Association of Missouri will be held April 23–24 in Kirksville. For information write to John L. Welsch, secretary-treasurer, 305 Forest, Harrisonville.

Nebraska: The 23rd Annual Nebraska State Fire School is scheduled for May 1-3 in Grand Island. Contact William A. Berens, chief state fire engineering instructor, Department of Vocational Education, Box 347, Harvard.

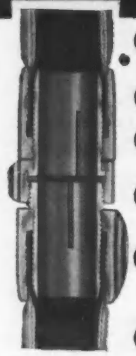
North Carolina: May 9–13 are the dates for the North Carolina Fire College in Charlotte. For details write Chief Charles L. Burkett, director, Fire Department Headquarters, Salisbury.

Ohio: Regional fire schools are scheduled for Columbus (Clinton Township), May 7–8; Marietta, May 15–22; and Wilmington, June 12. Contact Byrl R. Shoemaker, supervisor, Trade and Industrial Education Service, 220 South Parsons Avenue, Columbus.

Oklahoma: The State Fire School is slated for April 25–29 at Oklahoma State University in Stillwater. Write to R. J. Douglas, head, Fire Protection Department, Oklahoma State University, Stillwater.

Ontario: The University of Toronto will be the site of the Fire Chiefs' Conference, April 27–29, and also the Ontario Fire Chiefs' Association annual convention April 28. Contact D. E. Barrett, director, Ontario Fire College, P.O. Box 830, Gravenhurst.

2½" Conventional Wing Lug
NOW IN PRODUCTION
1 IN., 1½ IN., 3 IN.
ARE ALSO AVAILABLE
A new
high-pressure coupling by
BAR-WAY for all types of fabric hose



(Patented)

1. FULL FLOW—no significant reduction of internal diameter. Pressure is assured.
2. STREAMLINED—round-edged design, no projection.
3. INTERNAL EXPANSION—prevents shrinkage of the hose at the coupling.
4. ACCURATELY MACHINED—always the same . . . interchangeable.
5. REMOUNTABLE—can be removed and re-attached with a key any number of times without cost.
6. WEIGHT—no heavier than comparable expansion type coupling.

Successfully Tested To Bursting Point Of Double Jacket, Single Jacket And Sweat Hose

Recognizing the trend toward higher and higher pressures in fire fighting, Bar-Way has developed a revolutionary coupling that will withstand the pressure and the pull. This new coupling is designed to fire fighting specifications. It guarantees full flow, full pressure, it is streamlined to slip over obstructions, and it can be interchanged anywhere at any time without damage to either the tube or fabric. Specify Bar-Way! Write Bar-Way Mfg. Co., Stamford, Conn.

TESTED for 1400 lbs. pressure and 2400 lbs. pull under full pressure.

BAR-WAY MFG. CO., STAMFORD, CONN.

Oregon: The Northwest Fire and Arson Investigation Seminar will be held in Portland, May 23–27. Write to Dr. Milton K. Davis, Portland Extension Service, 1633 S.W. Park Avenue, Portland.

Pennsylvania: Courses in basic fire fighting, May 2–6; ladders, rescue and salvage, May 16–20; and advanced fire fighting, May 23–27, are scheduled at the Pennsylvania State Firemen's Training School in Lewistown. Contact Art Espey, director, Box 631, Lewistown.

South Carolina: Regional fire schools are scheduled for Prosperity, April 11–15; Bamberg, April 18–22; Beaufort, April 25–29; Landrum, May 2–6; and Lancaster, May 9–13. Contact Clarence A. Fischer, Sr., fire school coordinator, Orangeburg.

South Dakota: Chamberlain will be the site of the South Dakota Volunteer Firemen's Fire School June 6–10. Write to Francis W. Pyncheon, secretary, P.O. Box 590, Pierre.

Tennessee: A special short unit course on pumps will be held April 20–22 at the Tennessee State Fire Training Center in Murfreesboro. For information, write Homer S. Elkins, instructor-coordinator, 215 Chestnut Street, Chattanooga.

Virginia: A fire instructors' school will be held in Blacksburg, May 30–June 3. Contact R. Lawrence Oliver, director, State Board of Education, P.O. Box 654, Harrisonburg.

Washington: The Annual Fire School will be held June 22–25 in Port Angeles. Contact Lyle Goodrich, supervisor of fire training, 3206 East 125th Street, Seattle.

Wisconsin: The Southern Wisconsin and Northern Illinois Firemen's Association's 45th Annual Convention is planned for May 15 at Sauk City-Prairie du Sac. For details write Herman Pfund, secretary, New Glarus, Wisconsin.

Marinette Fire School

ONCE again Ansul Chemical Company, Marinette, Wisconsin, will sponsor a course in fire fighting. Twelve sessions of the company's fire school have been scheduled from May 16 to September 26. Employees of Ansul customers are eligible to attend the school without charge except for living expenses. Each session will last two and one-half days and trainees will be instructed in the use of hand, wheeled and large capacity fire extinguishing equipment. There will be actual fire fighting practice, group discussion and training films.

Arrangements for sending persons to one of the fire school's sessions can be made by contacting the regional Ansul office. These offices are located in Paoli, Pennsylvania; Milwaukee, Wisconsin; Cleveland, Ohio; Kansas City, Missouri; and Burlingame, California. Starting dates are:

May 16, May 23, June 6, June 13, June 27, July 18, August 1, August 8, August 22, September 12, September 19 and September 26.

Fires and Fire Losses Classified, 1958

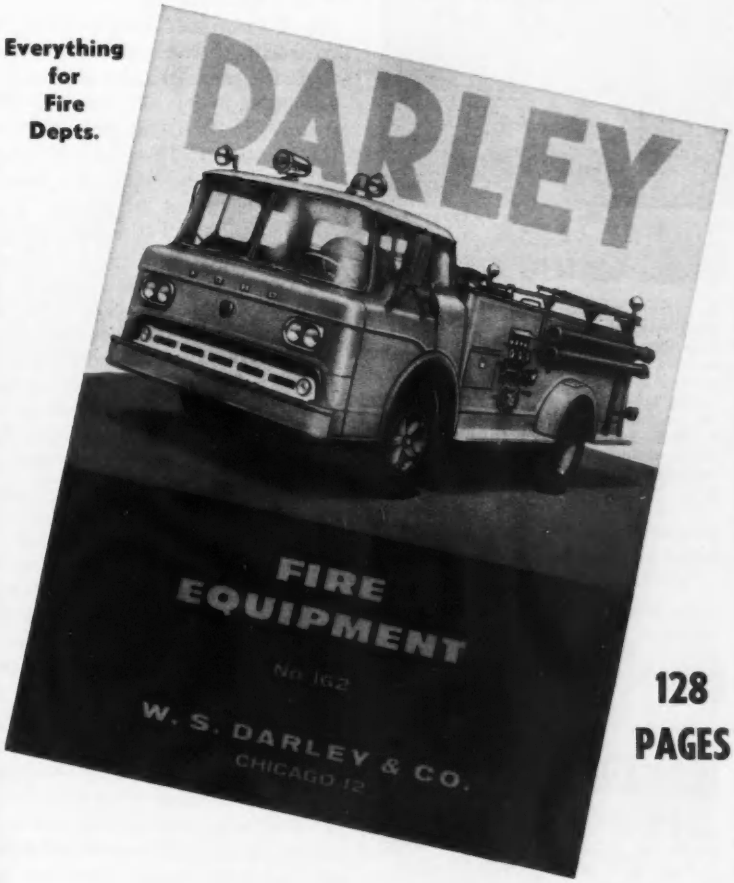
ANNUALLY, this NFPA study of U.S. fire experience is a feature of the October NFPA *Quarterly*. Included are facts on the number of fires and fire losses by occupancies and by causes based largely on 15 state fire marshals' reports. Reprints of this 12-page article, useful in many ways in fire prevention work, are available for 25 cents per copy with quantity discounts.

"COLONEL" Roland B. Duke, president of the Leonardtown, Maryland, Fire Department for 14 years, died early in February. He was the first chief of the department which was the first department in St. Mary's County and was known as the "Daddy" of the Southern Maryland Fire Service. He was also past president of many firemen's associations.

Write Today For This NEW Catalog

SPECIFY YOUR TITLE ON YOUR REQUEST

Everything for Fire Depts.



128 PAGES

Serving Honestly and Faithfully for MORE THAN 52 YEARS

W. S. DARLEY & CO.

ESTABLISHED 1908 **CHICAGO 12, ILLINOIS**

"PRETTY GOOD" IS NO GOOD!
ON RESCUE JOBS!
Depend on the P-F HYDRAULIC
RESCUE KITS

THEY'RE BETTER, FASTER, SURER!

In accident rescue equipment you can't rely on pretty good tools. They must be the *best!* That is why the famous P-F RESCUE KITS get to work *faster* when the need is for life-saving action — *FAST!* Gives you all the necessary attachments for speedy action — backed by the powerful 10-ton Hydraulic Jack in the RK-4 Kit, and the fast 4-ton Jack with the RK-1 Kit.

MAKES PRY-BARS, HACKSAWS, TORCHES LOOK LIKE SLOW-MOTION, IN TIGHT SPOTS

Every P-F RESCUE KIT is easily assembled for every kind of rescue job — no heart-breaking delays! Your men are there, *fast* and *ready* when the call comes. Can you say the same for your present rescue equipment? Better mail the coupon — below.

READ

the complete story of the P-F RESCUE KITS — how they can speed your rescue operations — in free RESCUE KIT Bulletin. Mail the Coupon TODAY!

H. K. PORTER, INC.
Dept. F-12, 74 Foley Street
Somerville 43, Mass.
Please send me your P-F RESCUE KIT Bulletin — with complete story on Models RK-4 and RK-1.
NAME.....
TITLE.....
ADDRESS.....
CITY.....STATE.....

Some Words About Sparky

THE international appeal of Sparky, the symbol of home fire prevention, shows in the number of requests for Sparky Fire Department memberships that come to NFPA headquarters from neighboring countries and distant lands.

There are many Sparky Fire Department units in Canada — within the last month individual membership kits have been sent to youngsters in Alberta, British Columbia, New Brunswick and Ontario. The North Cowichan (Sparky) Fire Department in Duncan, B. C., reports that its members are building a swimming pool on the fire hall premises. The plan is to combine the National Red Cross Water Safety Program with the Sparky Fire Department program. It is felt that each will stimulate interest in the other.

From the 3918th Installation Squadron at an RAF base in Oxford, England comes a report of the Base Sparky Club. Base Fire Chief SMSGT Joseph P. O'Dea says he has 246 youngsters from 6 to 12 years old currently receiving fire safety instruction one hour weekly. The "Sparkies" are taught 1) how to report a fire; 2) how to evacuate a smoke-filled building; 3) how to reduce panic; 4) how to use various types of fire extinguishers; 5) how to detect and promptly report fire or safety hazards; and 6) how to control children in the housing areas when fire apparatus is present or responding. In addition special fire department training films are shown to the children during training classes to broaden their knowledge of first aid, fire prevention and safety. Also, home inspection blanks are issued and when complete, are reviewed by the chief and then returned to the child with the fire department's recommendations.

Michael Keys, a youngster in Taita, New Zealand, writes that there have been quite a few fires around his area lately. Michael keeps a special folder for Sparky books and letters he collects.

Twelve boys (ages 15 and 16) in

Most effective FIRE ENTRY with FIRE KING by WHEELER

* "Scotch-Shield"

Sturdy, 3-ply, fire entry suit. Famous Tropic-Weave underwriter's grade aluminized* asbestos as outer layer. 100% wool middle layer. Neoprene coated fiberglas inner layer is vapor and liquid barrier against acids, live steam, etc. Hard hat built into helmet . . . pyrex vision piece . . . federally approved one-piece zipper . . . ample room for *air* pack inside. The standard for industrial and municipal departments. Ask your distributor or write.

POWER MEGAPHONES

Issue effective commands in fire-fighting. Powerful, light, transistorized units. 3 rugged styles . . . pin-point or flare sound patterns.

Send for FIRE FLYER

Complete details on Fire King, Megaphones, Proximity Suits and many other items. Get your copy today!

WHEELER PROTECTIVE APPAREL, INC.
244 W. Huron St., Chicago 10, Ill.
WHEELER

save life & property with New Model Falcon®

- Simple visual inspection with new sight glass — added neatness of design.

No one can place a price on the possible loss of lives due to fire. But Falcon Automatic Fire Detectors & Systems can give early warning of fire to protect lives and guard property.

Falcon Automatic Fire Detectors & Systems are:
- LISTED by U/L
- SELF-CONTAINED (no wires or batteries)
- FULLY GUARANTEED

. . . and they are low in cost!

Agents Wanted

WRITE for particulars — and free, informative "Sounds for Safety" folder!

Falcon® ALARM CO., INC.
SUMMIT, NEW JERSEY
Dept. FN

"RESCUE BREATHING"

© 1958

the FIRST and ONLY SAFETY FILM

teaching the NEW methods of MOUTH-TO-MOUTH RESUSCITATION that . . .

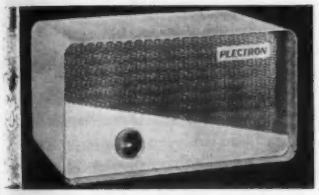
- has been officially approved for purchase under the Federal Contributions Program.
- was officially approved and endorsed as a teaching film by the New York and American Societies of Anesthesiologists.
- has won THREE National 1959 film awards: the NATIONAL SAFETY FILM CONTEST, the EFLA BLUE RIBBON and the CHRIS AWARD.
- was produced under the technical supervision of the foremost MEDICAL authorities on the subject.

Running Time — 21½ Minutes
16mm Color Sound Print . . $200
16mm B&W Sound Print . . $110
25% Discount on 6 or More Prints
Now available in ENGLISH, FRENCH, SPANISH and PORTUGUESE versions. Please specify language version you wish to purchase.

Send Orders or Requests for Previews-for-Purchase to:

AMERICAN FILM PRODUCERS
Dept. RB-2
1600 Broadway, New York 19, N. Y. • PL 7-5915

PLECTRON
THE ALL NEW
RADIO ALERTING SYSTEM



The PLECTRON Sentry

Place a tone activated PLECTRON F.M. Radio Receiver in each fireman's home and send emergency voice messages direct from your present 2-way base transmitter into every fireman's home.

Benefit from selective calling, silent alarms, and fast, efficient alerting.

Receivers available for any radio frequency in the 25-54 and 152-174 megacycle bands, and for activation from any tone frequency between 500 and 3000 cps.

CHECK THESE FEATURES:

- Fully transformer powered.
- Crystal frequency control.
- Tone activated.
- Automatic reset to "silent standby."
- Super-heterodyne receiver circuit.
- Low power consumption — 28 W.
- Designed for "Narrow-Band" reception.
- 1 MV Sensitivity (10 miles without outdoor antenna).
- Compactly built in ONE case, easily portable — 10" x 5" x 6" deep.
- Attractive metal case, choice of colors.
- Low cost — $89.50 each.
- Complies with Sec. 15 F.C.C.

Distributors and Dealers Throughout the U.S.
For Complete Information Please Write To:
PLECTRON CORPORATION
OVERTON, NEBRASKA

"Fireman Bill" and "Fireman Jim" demonstrate the use of a hand line for members of Fort Worth's Sparky Fire Department.

Tel Aviv, Israel are organized into a Sparky unit. Menashe Doni, who heads the group, writes that after five weeks of intensive training by the Tel Aviv Fire Brigade, they will serve in the Brigade at night.

Sparky's Fort Worth (Texas) Fire Department now has twenty-five companies and a total membership of about 700. Chief Luther E. Koch, Director of the Forth Worth Fire Department's Fire Safety Education program, reports:

"We group the children into companies by communities. Meetings are held at the local fire stations each quarter; all members are invited to attend. We give them instructions in basic fire safety procedure, teach them what fire hazards are, how to look for them, and what to do to eliminate them. This is done by demonstrations and chalk talks. We also show them the equipment located at the station and how it is operated. Then we give them some form of refreshments and some little souvenir. The program lasts from one hour to one and one-half hours."

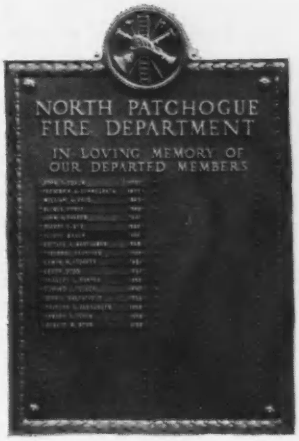
The children's ages run from 4–13 and one of the companies, called "members at large," includes youngsters from other parts of Texas as well as from neighboring states.

"Fireman Bill" Pierce is in his ninth year as director of this particular activity of Fort Worth's Fire Safety Education program.

The spring, 1960 issue of *Sparky News* is just off the press and available to anyone wishing a copy.

This *Sparky News* contains the first of a new series of articles dealing with the important lessons of child fire safety plus many items of interest to all those interested in junior fire department activities.

If you would like a copy sent to you, just write *Sparky News* on a postcard with your name and address and send to the PR Department, NFPA Executive Office.



A permanent record of honor and service in enduring bronze

There is no finer way . . . to pay permanent honor . . . than an everlasting record in a dignified International Bronze plaque.

Write today for our beautifully illustrated Brochure A . . . showing hundreds of original ideas for reasonably priced solid bronze plaques, honor rolls, memorials, awards, testimonials, commemorative tablets. For trophy, medal, cup ideas, write for Brochure B. Dept. 67.

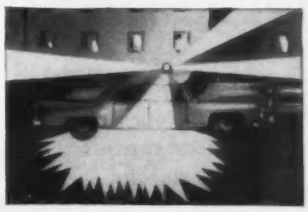
INTERNATIONAL BRONZE TABLET CO., INC.
150 West 22nd St., New York 11, N. Y.

SIRENO (TRADE MARK)

"SKY-LIGHTER"

NEW CONCEPT IN WARNING LIGHTS

Combines the features of the Red Revolving Ray with WHITE LIGHT in one compact unit.



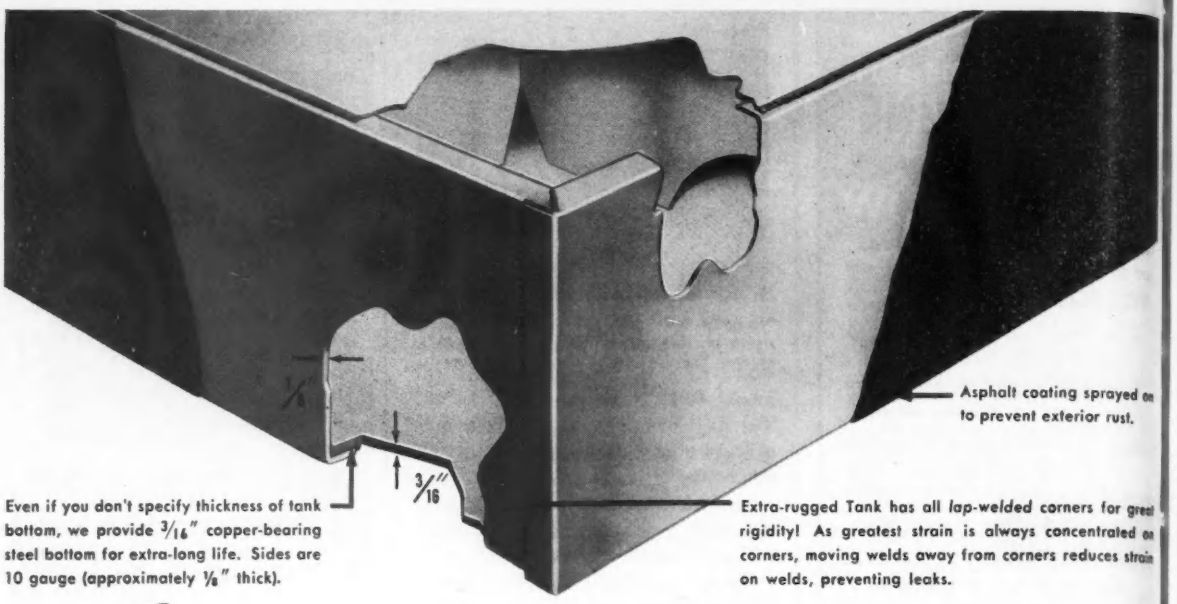
Two high intensity WHITE SEALED BEAM BULBS revolve thru 360° — one is aimed up into the sky; the other down to illuminate the vehicle and ground.

Write Dept. 27 for FREE bulletin

SIRENO CO., INC.
214 WILLIAM ST., NEW YORK 38, N. Y.

Please send bulletin and information.

Name_____
Street_____
City_____


Asphalt coating sprayed on to prevent exterior rust.
3/16"
Even if you don't specify thickness of tank bottom, we provide 3/16" copper-bearing steel bottom for extra-long life. Sides are 10 gauge (approximately 1/8" thick).
Extra-rugged Tank has all lap-welded corners for great rigidity! As greatest strain is always concentrated on corners, moving welds away from corners reduces strain on welds, preventing leaks.

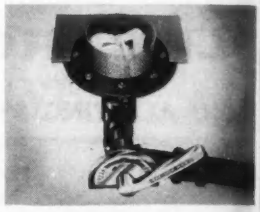
You get *more* superior features on American Fire Trucks even though you don't actually specify them...

You can order American Fire Apparatus with confidence that *our* rigid standards of quality *carry far beyond* your written specifications.

For example, corners and seams on all American booster tanks are *lap-welded* — not corner welded. This greatly increases rigidity — resists twisting strain — prevents troublesome leaks. *And whether you think to specify or not, all* tank bottoms are 3/16" copper-bearing steel for extra years of trouble-free life. Remember — 3/16" is *one-and-one-half times thicker* than the 10 gauge bottoms usually furnished.

Other standard features include: Multiple drains on pump, all connected to a single, central valve — so a hurried fireman *can't* "forget" to open or close one of several drains.

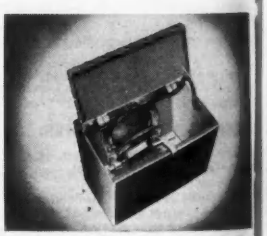
These and other engineering extras that really count are always provided on American Fire Apparatus at no extra cost — even though *not* mentioned in your specifications! Make sure you get these superior features!



Tank Outlet Sump has large bolted flange — *eliminates* need for costly removable top and resulting gasket problems, or sloping bottom with reduced capacity. Anti-swirl baffles keep air out, prevent loss of prime, and insure complete tank drainage.

Contact your nearest American representative for full details.

Choose either midship or front-mounted pump.



Patented Rear Tank Filler is also Pressure Relief Valve when filling from hydrant. Opens for filling with buckets. Strainer catches debris.

American

AMERICAN FIRE APPARATUS CO.

FIRE APPARATUS CO. "Always Pioneering with Better Engineering"

Main Office: Main Street Rd., Battle Creek, Mich. Plants at: BATTLE CREEK, MICH., MARSHALLTOWN, IA., STRATFORD, ONT.

Membership Report

TWO books, just published, should be of particular interest to fire department members of NFPA. Both are advertised in this issue. On page 8 is a description of *Operating Fire Department Pumpers*, one of the most popular books published by the NFPA for fire departments. Orders are now being filled.

On the back cover is a description of the new book on radiation control. This, too, should find its way into many fire station libraries.

And, by the way, you might also be interested in the special book offer on page 47 which may help you catch up on some publications you may have missed.

Below are listed fire departments which now have NFPA membership.

Alabama: Brighton Fire Department, Brighton; Fairfield Fire Department, Fairfield.

Alberta: New Town of St. Albert Fire Department, St. Albert.

British Columbia: Canal Flat Volunteer Fire Department, Canal Flat.

California: Waterloo-Morada Rural County Fire Department, Stockton.

Colorado: Aurora Fire Department, Aurora.

Florida: Ocala Fire Department, Ocala.

Idaho: Coeur d'Alene Fire Department, Coeur d'Alene.

Illinois: Edwardsville Fire Company No. 1, Edwardsville; Kirkland Community Firemen's Association, Kirkland.

Iowa: Caterpillar Tractor Company, Davenport.

Michigan: Muskegon Fire Department, Muskegon.

Minnesota: Minnetonka Volunteer Fire Department, Minneapolis.

New Jersey: Borough of Carlstadt, Carlstadt; Green Brook Volunteer Fire Company No. 1, Dunellen; Mt. Bethel Volunteer Fire Company No. 1, Martinsville; Chief Robert F. Pilger, Park Ridge.

New Mexico: Grants Volunteer Fire Department, Grants.

New York: Empire Mutual Insurance Company, New York; Contracting Officer, Moran Air Force Base, APO 282, New York; North Lindenhurst Volunteer Fire Department, Inc., North Lindenhurst; Plainview Volunteer Fire Department, Inc., Plainview.

North Carolina: Gastonia Fire Department, Gastonia.

Oregon: Siuslaw Rural Firemen District No. 1, Florence; Chief J. M. Myers, Myrtle Point.

Pennsylvania: Langhorne-Middletown Fire Company, Langhorne; Levittown Fire Company No. 2, Levittown.

Quebec: Westmount Fire Station, Westmount.

Saskatchewan: Creighton Fire Department, Creighton.

Tennessee: Limestone Volunteer Fire Department, Limestone.

Texas: Ozona Fire Department, Ozona.

Utah: Layton Fire Department, Layton.

Virginia: Staunton Fire Department, Staunton.

Washington: Montesano Volunteer Fire Department, Montesano; Washougal Fire Department, Washougal.

Wisconsin: Hudson Fire Department, Hudson.

STUDYING for PROMOTION?

Home study correspondence courses from National Preparatory Institute have assisted fire fighters of all ranks in their promotional studies for 39 years. Courses cover engine and ladder company procedures, salvage, overhauling, inspections, fire problems, hydraulics and other subjects with sketches and illustrations of fire problems, tools and equipment.

FOR THE MAN AT THE TOP . . .
FOR THE MAN ON THE WAY!

General knowledge study of fire field subjects is keyed for rookies, plant protection forces and Armed Services fire forces. Your answers to problems are corrected and graded by qualified instructors.

For complete information, at no cost, write today to

NATIONAL PREPARATORY INSTITUTE
33B SWEETSER TERR., EAST LYNN, MASS.

FIREMEN!

INCREASE YOUR INCOME!

Convert your spare time into steady income selling most popular line of Belts and Buckles with Fireman's personal initials, first name or nickname with miniature replicas of actual fire equipment beautifully enameled, also lapels, tie clasps, key chains, money clips, and cuff links. Excellent repeat business. We furnish you with FREE complete sales kit. Really nice part-time money producing items.

NO INVESTMENT NECESSARY!

For full particulars, write to

HOOK-FAST SPECIALTIES, INC.
Factory — 16 Eudora St.
P.O. Box 1425F Providence, R. I.

For Sale!

RADIO ALERTING SYSTEM

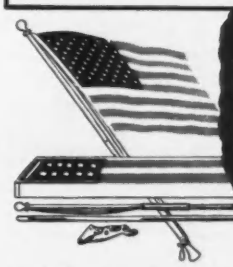
- 20 Plectron "FIRECALL" Receiving Sets
- 1 50mc Base Station
- 1 Plectron Generator Unit

All sets are complete and in operating condition. Equipment alone cost over $1,900.00. For sale at $500.

For information, write or call

JOHN M. BONNES, Sec.
300 E. Hinckley Ave.
Ridley Park, Pa.
Telephone LEhigh 2-5926

New 50-star American Flag



TODAY'S IDEAL FUND RAISER

Everybody wants to display the new "Old Glory." All sizes and quantities now available from America's oldest flag maker. Shipped on consignment. Pay only for those sold . . . after they are sold. No risk . . . no investment.

BE PATRIOTIC AND EARN MONEY TOO.
WRITE FOR FREE FOLDER NOW!
THE J. H. SCHULER CO., HANOVER, PA.

FOR SALE

1949 MACK and 1950 SEAGRAVE PUMPERS

Sealed bids will be received until 2:00 p.m. June 5, 1960 for the sale of one 1949 Mack fire truck with Hale 500 gpm pump and 200 gallon booster tank and one 1950 Seagrave fire truck with 750 Seagrave pump and 150 gallon booster tank with standard equipment. List of equipment on each truck upon request. Both trucks are still in service and can be seen until bids are accepted.

Bids to be plainly marked "Bid on Fire Truck" and addressed to:

Tuxedo-Cheverly Vol. Fire Co., Inc.
5711 Tuxedo Rd., Tuxedo, Hyattsville P.O., Md.

We reserve the right to reject any or all bids.

FD RESCUE MARKERS

to "I"DENTIFY the Homes of the AGED, BLIND and HANDICAPPED

FIRE I DEPARTMENT

ASK FOR FREE SAMPLE KIT

FIREMEN — IDENTIFY YOURSELF TO OTHERS WITH OFFICIAL

"DUAL GLOW" MALTESE CROSS AUTO EMBLEMS

Extra bright by day, reflective at night. Press them on by hand to any part of your car. Wording — "MEMBER FD"

2 EMBLEMS FOR $1.00

Send Today for Yours

FD PRODUCTS
Dept. F-10
514 W. Englewood Ave., Teaneck, N. J.

STEEL DRILL TOWER

AN ITEM of interest to fire departments is this steel scaffold tower shown in use at right by the Dallas, Texas, Fire Department. It was designed primarily for fire department training programs and for public demonstrations. The 52-foot tower at right was used at the Texas State Fair for demonstrations during Fire Prevention Week.

Built by Safway Steel Products, Inc., 6234 West State, Milwaukee 13, Wisconsin, the tower can be assembled for different heights and base areas with offsets, set-backs, spanning members, guard rails, locking casters and other design details as required. According to the manufacturer, assembly does not require any special tools. The frames fit together vertically on coupling pins and are joined horizontally with cross-braces mounted on wing-nut studs. All parts are designed for safe one-man handling at any height and the parts are interchangeable.

The erection of the tower can be made by fire department personnel or through service available from Safway dealers. Approximate purchase cost of the unit shown at right is $3,000 and it took about 30 man-hours to erect. If a tower is wanted temporarily the steel can be rented on a monthly basis.

Detailed information on this equipment can be obtained from Frank J. Stefe, advertising and promotion director, c/o Safway Steel Products, Inc., at the above address.

More and more, emergency rescue service is recognized as an essential function of the fire department. Even if this important equipment is not yet part of your plans, it is forward thinking to be prepared with the facts on your own local requirements... to know what this additional life-saving equipment would cost... to know what items and features are most needed to perform an effective service in your community. Why not get the facts now? There is absolutely no obligation.

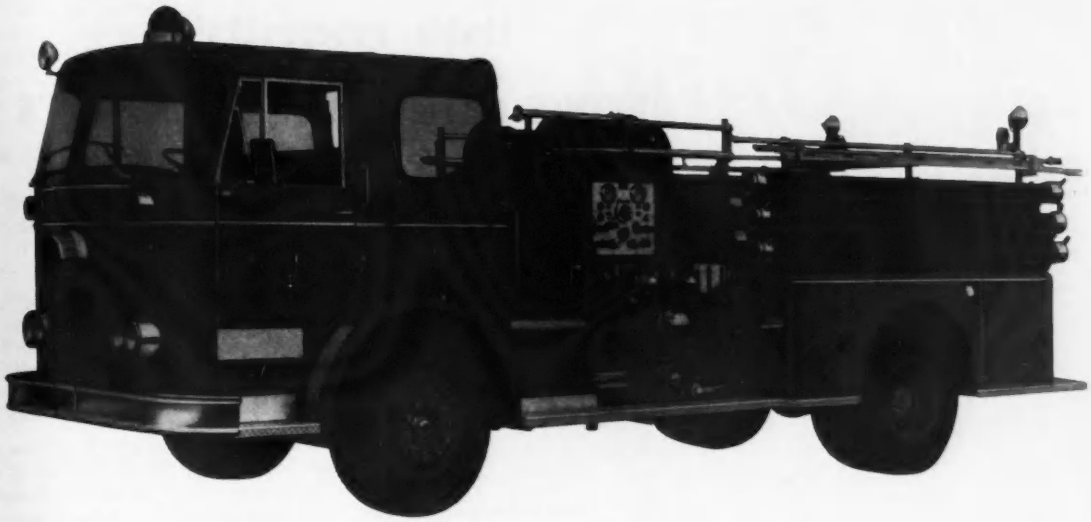
FOR A WELL-PLANNED, MORE EFFICIENT RESCUE UNIT...CALL GERSTENSLAGER

START YOUR PLANNING... GET YOUR COPY NOW!

New brochure contains a check list of the most needed equipment carried by fire-rescue vehicles. Also illustrates and describes a wide variety of body styles and sizes. Really helpful in starting your planning.

CUSTOM BODIES SINCE 1860

THE GERSTENSLAGER COMPANY, 1500 EAST BOWMAN, WOOSTER, OHIO



Seagrave **CADMIUM PLATING**

on all nuts, bolts and washers to prevent rust and corrosion.
Another one of the many Seagrave standard extra quality features at no extra cost to you.

MAIL THIS COUPON

THE SEAGRAVE CORPORATION, COLUMBUS 7, OHIO. Please send complete information on:

☐ CAB-FORWARD ☐ CONVENTIONAL ☐ AERIALS ☐ PUMPERS ☐ OTHER_____

Name . . . . . Title . . . . .

Address . . . . . FM 4-60

KING-SEAGRAVE LTD., WOODSTOCK, ONT.

BUYING NEW EQUIPMENT?

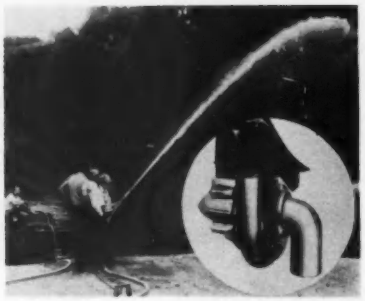
Consider the products advertised in this issue.

	Page
Air compressors	29
Alerting systems	39, 41
Apparatus	4, 5, 37, 40, 43, 46
Apparatus, pumping	41
Apparatus, rescue	32, 42
Breathing apparatus	26
Couplings	27, 36
Extinguishing agents	7
Films, motion picture	39
Fire detectors	29, 38
Flags	41
Helmets	28
Hose	6, 47
Hose brackets	45
Hose dryers	34
Hose reels	23
Hydrants	2
Instruction, promotional	41
Invalid markers	41
Jewelry, fire fighters'	41
Megaphones	38
Monitor receivers	30
Plaques, trophies, cups	39
Protective clothing	38
Pumps	3, 35
Pumps, portable	21, 25
Rescue kits	38
Sirens	31
Uniforms	28
Warning lights	31, 34, 39

INDEX TO ADVERTISERS

	Page
Acton Laboratories, Inc.	30
Akron Brass Manufacturing Co., Inc.	27
American Film Producers	39
American Fire Apparatus Co.	40
American Fire Pump Company	3
Bar-Way Manufacturing Company	36
Cairns & Brother, Inc.	28
Circul-Air Corporation	34
Cornelius Company	29
W. S. Darley & Company	37
Falcon Alarm Company, Inc.	38
FD Products	41
Federal Sign and Signal Corp.	31
Fire Alarm Thermostat Corp.	29
Fyr-Fyter Company	46
Gerstenslager Company	42
Globe Manufacturing Company	28
Goodall Rubber Company	6
Hale Fire Pump Company	21
Clifford B. Hannay & Son, Inc.	23
Hook-Fast Specialties, Inc.	41
International Bronze Tablet Co., Inc.	39
Mack Trucks, Inc.	4, 5
Mine Safety Appliances Company	26
Marysville Body Works, Inc.	32
Mueller Company	2
National Preparatory Institute	41
North American Signal Company	34
Pacific Marine Supply Company	30
Plectron Corporation	39
H. K. Porter, Inc.	38
Ridley Park, Pa.	41
Rockwood Sprinkler Company	7
Seagrave Corporation	43
J. H. Schuler	41
Sireno Company, Inc.	39
D. B. Smith & Company	35
Super Vacuum Mfg. Co., Inc.	31
Tuxedo-Cheverly Volunteer Fire Company, Inc.	41
W-B Manufacturing Company	45
Wheeler Protective Apparel, Inc.	38

this month's *News and New Products*



Pump Uses Outboard Motor Power

Fit the new Shellback pump to any 5 hp or more outboard motor and you get 110 gpm at 55 pounds pressure. Designed for 1½-in. fire hose, it costs under $50 complete. Write to *Shellback Manufacturing Company*, 1320 East Elza, Hazel Park, Michigan.

●

To preview and to order "Rescue Breathing," the first safety film on new methods of mouth-to-mouth resuscitation, contact *American Film Producers*, Department RB-2, 1600 Broadway, New York 19, New York. . . . Volunteer firemen and their wives are finding the low-cost, reflectorized "Safety Signal Stick" invaluable to nighttime driving safety. Sold through *Safety Signal Sales Company*, 15 Hinckley Road, Waban 68, Massachusetts. . . . The new "Straight Edge" Hose Cutter announced in December FIREMEN (page 35) is just what every fire department needs to get broken hose back on the job. Write to *Bell & Pihl Company*, 17 Wyman Street, Arlington 74, Massachusetts, for literature.

●

Ladies' auxiliary organizations are finding that sizable funds can be realized through sales of quality firemanic jewelry made by *Hook-Fast Specialties, Inc.*, P.O. Box 1425F, Providence, Rhode Island. . . . *Waterous Company*, Department 2F11, 80 East Fillmore Avenue, St. Paul, Minnesota, has a fact-filled folder for you on Electro-Matic fire pumps. . . . A Sparky fire department in your community will get the fire prevention story over the year 'round. For free kit and information write to Sparky's Fire Department, NFPA, 60 Batterymarch Street, Boston 10, Massachusetts. . . . Industrial plant brigades and municipal fire departments will find the new Fyr-Fyter catalog with 1,200 items a handy purchasing guide. It's free from *Fyr-Fyter Company*, 221 Crane Street, Dayton 2, Ohio. . . . New 200-500 watt portable floodlights for night fire fighting are illustrated in catalog H available through *Stonco Electric Products Company*, Kenilworth, New Jersey.

●

With Indian back-pack fire pumps you are prepared for the rush of spring and summer grass and brush fires. You save on heavy expensive equipment, too. . . . Looking for ways to make attractive signs for announcements, special events, etc.? Find out what the Webway Sign Cabinet can do for you. Write to *Holes-Webway Company*, St. Cloud, Minnesota. . . . Get the facts on M-L uniforms before you buy. Write to *Maier-Lavaty Company*, Department 110-B, 227 West Van Buren Street, Chicago 7, Illinois. . . . Studying for promotion? Write *National Preparatory Institute*, 33B Sweetser Terrace, East Lynn, Massachusetts for information on their correspondence courses.

●

Puncture-proof soles on rubber boots can help prevent accidents. The Fire-Master knee high and full length boot with flexible anti-puncture midsole is featured by *Lehigh Safety Shoe Company*, Emmaus, Pennsylvania. . . . That new folder on emergency rescue vehicles by *Gerstenslager Company*, 1500 East Bowman Street, Wooster, Ohio, has been helpful to scores of fire departments. Write for your free copy today.

●

Portable Megaphone with Talk-Back Device

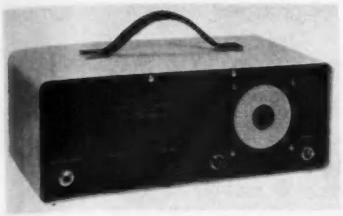
"Road-Commander" is a new transistorized 25-watt portable megaphone

AVIATION BIBLIOGRAPHY

Now available from the NFPA Executive Office is Aviation Bulletin No. 425, "Bibliography of Available NFPA Aviation Bulletins and Other Special Aviation Publications." This complete aviation bibliography is free.

public address system and radio talk-back device weighing 13 pounds including batteries. Model PRC-2425 is approved for purchase under O.C.D.M. matching funds program. For descriptive folder write to *Lawrence, Inc.*, P.O. Box 5106, Seven Oaks Station, Detroit 25, Michigan.

•



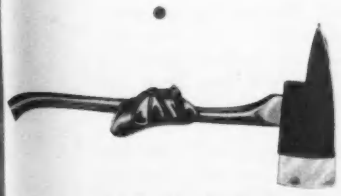
Portable FM Monitor Receiver

Designed for station or car use is a new, moderately priced FM monitor receiver for frequencies of 30–50 megacycles or 148–172 megacycles by *Acton Laboratories, Inc.*, 533 Main Street, Acton, Massachusetts. Write for free literature.

•

A newly designed four-sided portable welding screen that folds easily for storage is announced by *Singer Glove Manufacturing Company*, 860 West Weed Street, Chicago 22, Illinois. Curtain material is available in standard 12 ounce duck, neoprene-coated fiber glass and Johns-Manville aluminized asbestos. . . . The 2,000, 5,000 and 7,500 watt air-cooled diesel engine electric plants by Kohler are illustrated in a new eight-page booklet. Write for diesel engine Trio booklet, *Kohler Company*, Kohler, Wisconsin. . . . *Eureka* fire hose is now available in 100 per cent Dacron construction, according to R. P. McCulloch, Sales Manager. . . . The Link mobile radio line has been purchased by *Platt Sales, Inc.*, 23 Park Place, New York, New York. . . . Hill Top Hose Company, Natrona Heights, Pennsylvania, has acquired a new 14 man fire-rescue unit complete with rescue equipment and tools from *Gerstenslager Co.*, Wooster, Ohio.

•

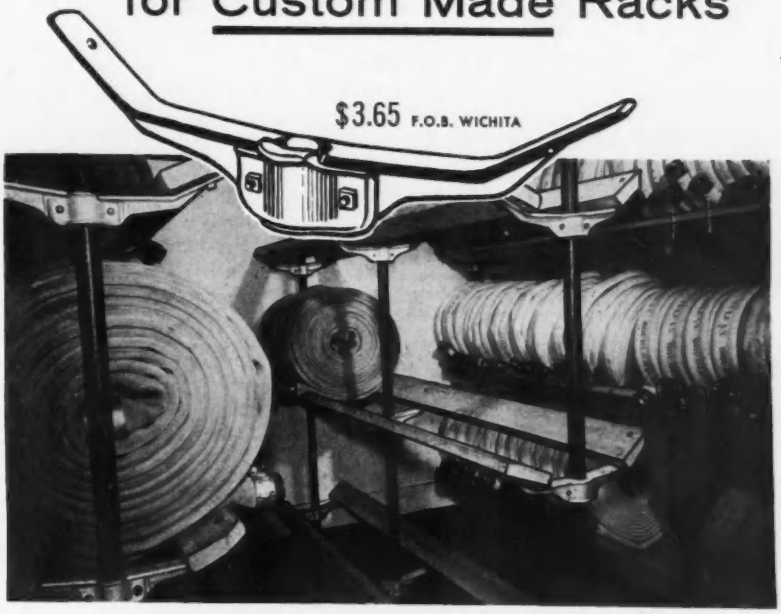


New and Novel Tie Clasp

Here is a new fireman's ax tie clasp with authentically modeled helmet on the ax handle. Ax blade is enameled in red and entire tie clasp is heavily gold plated for lasting wear. This quality piece of jewelry should interest every fireman! Write to *Hook-Fast Specialties, Inc.*, P.O. Box 1425, Providence, Rhode Island.

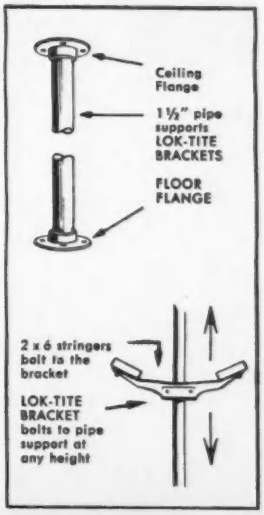
Hose **BRACKETS**

for Custom Made Racks



Convert Waste Space To Valuable Storage!

Lok-Tite fire hose brackets provide storage racks in odd dimension areas where ready-made storage will not fit. Encourage good housekeeping practices . . . assure easy hose inspection and correct ventilation by building sturdy storage with Lok-Tite brackets approved by hose manufacturers and fire departments everywhere.


Ceiling Flange
1½" pipe supports LOK-TITE BRACKETS
FLOOR FLANGE
2 x 6 stringers bolt to the bracket
LOK-TITE BRACKET bolts to pipe support at any height

W.B MANUFACTURING COMPANY
157 N. WACO • WICHITA, KANSAS

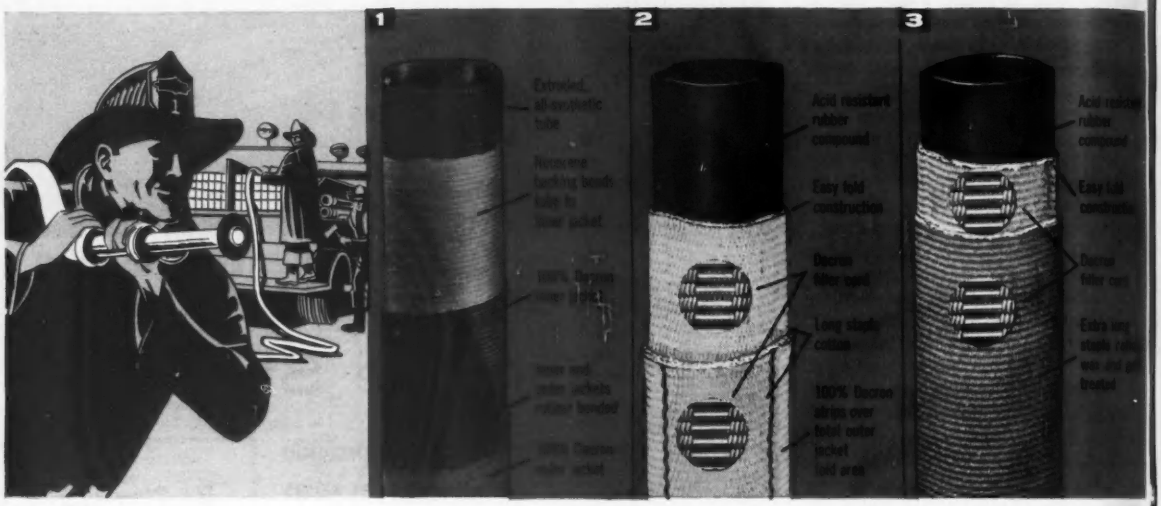
W. B. MANUFACTURING CO. DEPT. F.
157 North Waco • Wichita, Kansas
Please send me ____ brackets @ $3.65.
NAME_____
STREET_____
CITY_____ STATE_____

- Simple to install
- Easy to adjust
- Big load support

Fyr-Fyter's *quality hose brands all employ* DACRON* for strength, light weight and long life!

Most municipal and industrial fire departments prefer hose made of Dacron. Question is—what kind of Dacron construction is best for the job, considering hose cost? Fyr-Fyter offers 3 outstanding brands of quality hose. Each brand employs Dacron a different way for strength, light weight and long life. Each brand has different wearing characteristics, and of course is priced accordingly. When you want highest hose quality, always specify Fyr-Fyter! And if you need help in making a decision on which Fyr-Fyter hose brand to buy, write for additional literature and prices to The Fyr-Fyter Company, Dayton 1, Ohio.

**DuPont trademark for its polyester fiber.*



1 AMBASSADOR . . . "Bonded" All-Dacron double jacket. 100% Dacron jackets are permanently "rubber-bonded." Can be dragged miles without fraying. Minimum water absorbency means no drying required, no mildewing, no spare hose needed. Lasts about 5 times longer than standard cotton hose. Tests 600 lbs., in 1½" or 2½" dia., 50 ft. lengths.

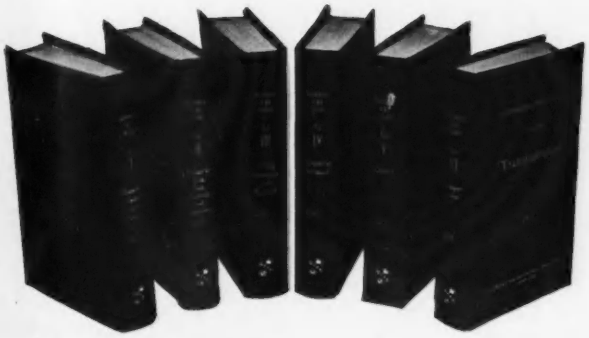
2 SUPER FYR-STRYPE . . . 100% Dacron strips over total fold areas, plus Dacron filler cord. Pure Dacron strips over total fold areas reduce hose wear 90%! Jackets are reinforced with Dacron filler cord. Is 15% lighter and 50% stronger than conventional hose. Tests 600 lbs., in 1½" or 2½" dia., 50 ft. lengths.

3 SUPER FYR-FLEX XL . . . cotton reinforced with Dacron filler cord. Extra long staple cotton of extremely close pick, wax and gum treated, supports Dacron filler cord. At least 10% stronger than standard cotton hose. Tests 600 lbs., in 1½" dia., 50 or 100 ft. lengths. Fyr-Fyter also offers Booster Hose and Suction Hose.

Fyr-Fyter

Branches: Atlanta, Baltimore, Boston, Chicago, Dallas, Dayton, Detroit, Los Angeles, New York, Newark, Philadelphia, Pittsburgh, Portland, Rochester, San Francisco, Toronto (Ontario). Representatives and Distributors in all principal cities.

NFPA BOOKS



The National Fire Codes, 1959

Vol. I — Flammable Liquids and Gases $7.00
35 standards, 1024 pages

Vol. II — Combustible Solids, Dusts, Chemicals and Explosives $7.00 35 standards, 736 pages

Vol. III — Building Construction and Equipment $7.00
33 standards, plus an informative discussion of building codes and references to model codes, 784 pages

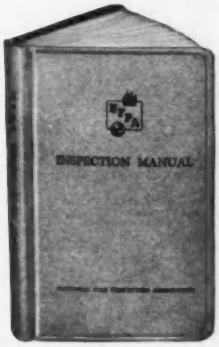
Vol. IV — Extinguishing Equipment $7.00
29 standards, 1168 pages

Vol. V — Electrical $7.00
The National Electrical Code, 1959 edition, plus six other NFPA electrical standards and a digest of the electrical provisions of 69 other NFPA standards, 768 pages

Vol. VI — Transportation and Misc. $7.00
34 standards on air, marine, bus and truck transportation and salvage, plus a review of government regulations, 800 pages

All Fire Codes 5½ x 8⅛ in., bound in cloth, gold lettering.

Operation School Burning. The official report of the Los Angeles Fire Department on the school fire tests conducted in Los Angeles, April–June 1959. These tests, the first extensive full-scale fire tests devoted exclusively to life safety from fire, present new and valuable data as to the spread of smoke, sprinkler performance, operation of fusible link devices and many other fire safety features. Provides factual data on 55 fire tests which call for a complete re-evaluation of preconceived concepts of life safety. Cloth bound (6 x 9 in.), 270 pages, illustrated. **$4.75**



NFPA Inspection Manual. A pocket manual for property owners, fire departments and inspection offices of insurance companies, central managements and governments. Particularly helpful to beginners and equally useful to experienced inspectors. Covers inspection procedures, heating hazards, inspection of protective equipment, what "approval" means, methods of making plans and reports and much other valuable information (1959). Cloth bound, 4¼ x 6½ in., 320 pages, illustrated. **$4.00**

Research on Fire. A survey of research on fire providing a description of the facilities, personnel and management of thirty-nine agencies in the U.S.A. and sixteen in other countries which are engaged in fire research. An adequate picture of the kinds of work going on is presented. Cloth bound, 6 x 9 in., 184 pages, 100 illustrations, 1957. **$5.00**

To: **National Fire Protection Association**
60 Batterymarch Street, Boston 10, Mass.

F 4-60

Date.....

Please send me the following volumes for which $.....is enclosed. $40.00 for all 9 books.

- ☐ Vol. I — Flammable Liquids and Gases, $7.00
- ☐ Vol. II — Combustible Solids, Dusts, Chemicals and Explosives, $7.00
- ☐ Vol. III — Building Construction and Equipment, $7.00
- ☐ Vol. IV — Extinguishing Equipment, $7.00
- ☐ Vol. V — Electrical, $7.00
- ☐ Vol. VI — Transportation & Misc., $7.00

($35 for entire set of six volumes)

- ☐ Operation School Burning, $4.75
- ☐ Research on Fire, $5.00
- ☐ Inspection Manual, $4.00

- ☐ All the above books (value $55.75) for $40.00

- ☐ Complete list of publications
- ☐ Membership application blank

Name .....

Address.....

FIREMEN
60 BATTERYMARCH ST.
BOSTON 10, MASS., U. S. A.

POSTMASTER: If undeliverable FOR ANY REASON, notify sender, stating reason, on Form 3547.

Now you can get

RADIATION CONTROL

FOR FIRE AND OTHER EMERGENCY FORCES

By Andrew A. Keil, Radiological Officer, New York Fire Department

Assisted by Fred N. Brandkamp and the following contributors, all of the New York Fire Department: Michael J. Costello, Alfred R. Karteron, Mark Lessing, Walter R. McGill, Irwin Purisch, Albert W. Ring and Herman Thiele.

$4.75 per copy

Clothbound

256 pages — 5½- by 8½-in.

Here is a useful book for fire department personnel who may be responsible for setting up radiation control procedures. It gathers together a great deal of technical information on the fundamentals of nuclear radiation and explains the hazards of radioactive materials, the various limits of exposure for human beings, methods and equipment for detecting radiation, and how fire departments and other emergency forces should handle such an emergency.

This is another valuable book for fire department reference libraries. Copies can be obtained now by using the convenient order blank below.

Some of the Things Covered by This Book

Description of actual situations involving radioactivity which have been faced by fire and emergency forces.

Training in operations by which fire forces may identify situations with nuclear radiation dangers.

Effects of nuclear radiation on the human body.

Procedures for determining when emergency personnel have been significantly exposed to radiation.

The instruments by which radioactivity is measured.

Special points to cover in fire department inspections of property where radiation hazards may exist.

Modification of standard fire fighting procedures made necessary by radiation.

Description of radiation machines and reactors which produce radioactivity.

Description of common uses of radioisotopes and other radioactive materials.

What radioactive materials look like and a description of typical containers.

Discussion of the present development of regulations on transportation of radioactive materials.

How to clean up after radioactive materials have been spilled: decontamination.

Nuclear bomb effects and fallout.

ORDER BLANK

National Fire Protection Association **F-4-60**
60 Batterymarch Street, Boston 10, Mass.

Gentlemen:

Please send me.....copies of the new book, "Radiation Control" at $4.75 per copy.

Name .....

Address .....

City..... **Zone**..... **State**.....

☐ Please bill me. ☐ Check for.....dollars is enclosed.